A Model for Sustainable Palm Oil?  
A Case Study of Agropalma

Nathalie Sheppe, Karina Garcia, Terah DeJong, Roberta Costa, Alexa Sisk, and Kimberly Smith  
Hewlett-Packard Company

Photo Credit: Mario Osava/IPS
List of Acronyms

APP  Áreas de Preservação Permanente
BNDES  Banco Nacional do Desenvolvimento
CI  Conservation International
CPO  Crude Palm Oil
CSPK  Certified Sustainable Palm Kernel Oil
CSPO  Câmara Setorial da Cadeia. Produtiva da Palma de Óleo
CSPO  Certified Sustainable Palm Oil
CSR  Corporate Social Responsibility
EFB  Empty Fruit Bunches
EMATER  Empresa de Assistência Técnica e Extensão Rural
EMBRAPA  A Empresa Brasileira de Pesquisa Agropecuária
FETAGRI  Federação dos Trabalhadores na Agricultura
FFB  Fresh Fruit Bunches
FINEP  A Financiadora de Estudos e Projetos
FPIC  Free, Prior and Informed Consent
FSC  Forest Stewardship Council
GHG  Greenhouse Gas
GRI  Global Reporting Initiative
GOB  Government of Brazil
HCV  High Conservation Value
IBD  Instituto Biodinâmico
IBAMA  O Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis
ICMS  Imposto sobre Circulação de Mercadorias e Serviços
IMS  Integrated Management System
INCRA  Instituto Nacional de Colonização e Reforma Agrária
ISO  International Organization for Standardization
ISO 9001  Quality Management Systems
ISO 14001  Environmental Management Systems
ISO 22000  Food Safety Management Systems
IPAM  Instituto de Pesquisa Ambiental da Amazônia
ITERPA  Instituto de Terras do Pará
OHSAS  18001  Occupational Health and Safety Assessment Services
PRONAFE  Programa Nacional de Financiamento Estudantil
RSPO  Roundtable on Sustainable Palm Oil
SEMA  Secretaria Especial de Meio Ambiente
UFPA  Universidade Federal do Pará
WWF  World Wide Fund for Nature
Executive Summary

Agropalma is Brazil’s largest producer of palm oil, and has been widely recognized as a leader in addressing negative social and environmental impacts in the industry. This report summarizes the findings from a study conducted by a team of graduate students from Columbia University and the University of São Paulo conducted between January and April, 2012. The objective of the field and desk research was to construct a case study of Agroplama’s sustainability practices and thereby identify key lessons, opportunities and constraints for sustainable palm oil more generally. These lessons are relevant as palm oil production, primarily for biodiesel, is rapidly expanding in Brazil, and as demand for palm oil globally—already the world’s most consumed edible oil—is projected to double by 2020. The lessons from Agropalma are particularly important to consider as large-scale agricultural investment and land acquisitions increase worldwide; since 2000, 16 million hectares have been acquired for oil palm, which is the dominant crop in terms of land area. This is especially important in Africa, where nearly half of recent land deals have occurred, and where human rights violations, poor governance and environmental consequences are of particular concern.

Agropalma’s sustainability model largely follows the principles and criteria established by the Roundtable on Sustainable Palm Oil (RSPO), of which the company is a founding member. However, many of the company’s policies and practices predate its adhesion to the multi-stakeholder group. Some of these practices include: active maintenance of over half of its land as forest reserve, integrated pest management, partnering with environmental and development NGOs for biomonitoring and community engagement efforts, integrated both outgrowers and smallholders into the supply chain, strict adherence to labor relations and working conditions standards, among other measures. The motivations and contextual factors driving the company’s practices are complex, however, and include its corporate culture and history, its business model
and status as a producer in a country with high costs, its adherence to voluntary certification schemes including that of the RSPO, Brazil’s national labor and environmental laws and regulations, dynamics of local labor and politics, land tenure issues in the Amazon, and national policies with respect to industrial agriculture.

Key lessons from the case of Agropalma include the following:

- Institutions, regulations and laws in the country of operation are more important from a sustainability standpoint than voluntary schemes like the RSPO.

- The RSPO and other mechanisms offer minimum standards that are especially effective where the producer, like Agropalma, is targeting a particular buyer profile. However, until legal compliance replaces voluntary guidelines, consumer-driven sustainability will remain in the minority.

- Agropalma, by justifying all its practices in terms of its long-term financial viability, exemplifies the paradigm shift underway that views sustainability management as core business rather than peripheral to the bottom line.

These and other insights offer a way forward as companies, investors, policy-makers and NGOs look for ways to meet the growing demand for palm oil while also avoiding its potentially devastating environmental and social consequences.
# Table of Contents

**Introduction** .......................................................................................................................... 7

**Issues and Trends in the Palm Oil Industry** ........................................................................... 13

**International Efforts Towards Sustainable Palm Oil** ......................................................... 24
  - Background: Consumer Pressure and Private Governance ........................................... 24
  - The Roundtable on Sustainable Palm Oil ........................................................................ 26
    - Overview ...................................................................................................................... 26
    - Certified Sustainable Palm Oil ................................................................................... 28
    - Limitations and Critiques ............................................................................................ 34
  - Other Sustainability Trends ............................................................................................... 37

**What Does Sustainability Look Like? Agropalma’s Model** ............................................. 39
  - Company Overview ......................................................................................................... 40
  - Sustainability in Agropalma: History and Vision .......................................................... 42
  - Certification and Labeling Schemes ............................................................................... 44
  - Agropalma’s Sustainability Policies and Practices ......................................................... 48
    - Environmental .............................................................................................................. 48
    - Social ............................................................................................................................. 51
    - Smallholder Program ................................................................................................... 54

**Why be Sustainable? Motivations and Contextual Factors** ............................................. 57
  - Company Culture ............................................................................................................ 58
  - Brazilian Regulatory and Policy Environment .............................................................. 59
    - Labor and Environmental Laws ................................................................................. 59
    - Land Tenure ................................................................................................................. 61
Introduction

Palm oil tops a number of lists: most productive oil per hectare (about 5 tons per hectare per year\(^1\)), most traded vegetable oil internationally (accounting for 65% of all trade\(^2\)), and the most popular crop in large scale agricultural investments since 2000.\(^3\) Its negative impacts have been well-publicized, especially its role as the main deforestation driver in Southeast Asia. Indeed, between 1990 and 2005, up to 60% of palm oil expansion in Malaysia and Indonesia was through clear-cutting virgin rainforest.\(^4\) This conversion into monocultural plantations has destroyed habitat and endangered key species like the orangutan, released many tons of carbon dioxide into the atmosphere, among other environmental impacts. Its social issues have also been of concern, leading to the forced relocation of communities and other human rights and labor violations. However, palm oil production has been vital to the economic development of Malaysia and Indonesia, and its low price and versatility—used in everthing from cosmetics to biofuels to packaged foods to industrial lubricants—ensures that its demand will continue to rise, most likely doubling to around 240Mt by 2050.\(^5\) This is in large part the result of project growth in emerging economies like China and India, which already surpass Europe as the world’s top

---


palm oil consumers. In addition, its potential for biofuel, given its high productivity, is also attractive; currently, around 20% of palm oil is converted into biodiesel.⁶

Any attempt to discuss sustainability in palm oil production, therefore, immediately enters a realm that is polemical and complex. Debates over its production impacts are inextricable from some of the thorniest questions of our day, notably:

- How do we feed an exploding global population? The 2008 commodity price spike, and ensuing food crisis in many countries, has brought food security to the forefront of global policy priorities. Palm oil prices also surged in 2008 to $1,150 per metric ton from $311 in 2002, yet its price has remained relatively high at $1,110 as of March 2012.⁷ Much of this demand is coming from emerging markets, including China and India.

- How do we balance competing land use priorities? Palm oil is grown in tropical regions that also are home to most of the planet’s biodiversity and the world’s most important carbon sequestration resources. Many livelihoods are at stake, and consequences from forest loss are both local and global. Yet besides deforestation, competing uses of arable land in general will become more fierce as climate change changes its distribution. In addition, the “food versus fuel” debate is relevant to palm oil, given its potential for biodiesel, and the fact that for many smallholders, growing only palm oil can worsen food security if it’s done at the expense of subsistence crops.

---


• How do we encourage responsible investment in agriculture? Since 2000, an area half the size of Western Europe has been bought or leased as part of over 1,000 documented “land deals,” almost half in Africa.\(^8\) Palm oil is the most important crop, accounting for over 16 million hectares of land, more than double of current global area under production of about 12 million hectares. Of the deals for which data on community involvement is available, \(5\%\) of have followed proper Free and Prior Informed Consent (FPIC) procedures,\(^9\) and are often made in countries with poor governance, which jeopardizes its potential to contribute to economic development in the way that it has in Southeast Asia.

• What agricultural models are the most sustainable, economically and socially? Various outgrower and smallholder integration schemes have been attempted in many crops for hundreds of years, but in general large-scale plantations remain dominant in palm oil. While these generate employment, debates abound on the effects of monoculture, both environmentally and socially. Local political conditions often shape the models: in Africa, many communities are losing their agricultural land because of insecure tenure rights, while in Brazil, the years of land tenure reform complicates access to land and shapes the model of smallholder integration adopted.

• What role should governments and the private sector play in sustainable development? Multi-stakeholder mechanisms like the Roundtable on Sustainable Palm Oil (RSPO) have emerged, reflecting new power shifts and international norms, but “self-regulation” and other aspects of corporate social responsibility

\(^9\) Ward Anseeuw et al., “Transnational Land Deals for Agriculture in the Global South.” CDE/CIRAD/GIGA, Bern/Montpellier/Hamburg, p.40
continue to evolve and sometimes operate in tension and disconnected with regulatory models. Private governance mechanisms have emerged as key for setting minimum standards and operating as a platform of exchange among different types of actors, yet because their emergence was the result of activism and reputational issues, they have been accused of “greenwashing,” not having any “teeth,” and may not be effective in certain parts of the world, including the primary palm oil consumers of China, India and Indonesia.

• Finally, what is sustainability? Definitional issues go beyond semantics given that they touch upon competing values, visions and priorities. The relative role of environmental protection, for example, versus social and economic development, to extent there may be tensions or trade-offs, is not clear. Palm oil production has contributed to economic growth in Southeast Asia, and may perhaps do so as it expands in Latin America and Africa. In addition, sustainability is often vague since it operates on multiple levels of analysis—from the land-use zoning decisions prior to planting oil palm to the agricultural practices adopted well after the trees are mature. Finally, sustainability has sometimes been viewed as a business burden, or something peripherally related to reputation and image, while it is increasingly being viewed as fundamental to the bottom line—sustainability as good business—and discourse surrounding this new paradigm shift and the related talk of the new “green economy” is reflected in the palm oil industry as well.
It is not the intention of this report to answer or even fully pose all these questions, but they form an important backdrop to understanding the research. Instead, this paper looks at the case of one small palm producer in an emerging but still minor player in the industry. By looking at Brazil’s Agropalma, the goal is to shed some insight on these macro questions through a micro lens. The research was conducted as part of the Economic & Political Development concentration capstone workshop at Columbia University, in collaboration with the University of São Paulo. While these capstone projects typically entail work for a client as consultants on a particular problem, and while this project did have a terms of reference (see Annex 1), its goal veers more towards applied research with policy implications than a consultancy report.

A number of central research questions were considered during preliminary research, but the main question that this report aims to address is the following: What can the case of Agropalma reveal about the possibilities and limits of sustainable palm oil production in Brazil and elsewhere? To answer this question, a five-step approach was adopted, which also forms the logic behind this report’s organization:

1. Using field and desk research, the general features of the palm oil industry and its sustainability concerns in Asia and in Brazil were identified.
2. Attempts to resolve these issues at the global level, especially the RSPO and other private governance mechanisms, were examined in a general sense.
3. Agropalma’s sustainability practices were thoroughly studied through field visits, observation and interviews.
4. Since no practices exist in a vacuum, and all “best practices” must be translated to fit their own contexts, motivations and contextual factors shaping the company’s behavior were identified.

5. Finally, based on the preceding steps, key lessons could be identified from the case of Agropalma that are pertinent both for Brazil and potentially elsewhere.

The methods used to answer these questions included an extensive literature review, semi-structured interviews with multiple stakeholders, and field observation. The sequencing of field research was as follows: an initial trip in January focused on gaining a thorough understanding of the company’s practices through looking at all aspects of the company’s plantations. Then, a second trip in March focused first on interviewing experts and stakeholders on all contextual factors related to the company and palm oil production in Brazil—from key financial and policy actors, international and local NGOs, labor leaders, academics, politicians in state government, and others. (The full list of persons met can be found in Annex 2.) Finally, at the end of the two weeks, a condensed second visit to Agropalma’s plantations was conducted to focus on outstanding questions formulated in light of the stakeholder interviews and desk research. Field research in both January and March was conducted jointly by Columbia and USP students.

There are a number of limitations and constraints to this approach that bear mention. For one, the limited field time and limited technical expertise meant that a full and in-depth examination of the company’s practices could not be conducted. This was beyond the scope of the assignment, especially since the role of the researchers was very different from auditors or certifiers. However, it means that many concrete recommendations pertaining specifically to
Agropalma cannot be offered. Other constraints and limitations are common in fieldwork in general, including language and cultural barriers and severe time limitations given the project’s concurrence with a full academic program. The collaboration with USP was invaluable in gaining a more in-depth understanding of the context.

The conclusions of this research are meant to offer a rich and accurate picture of the company and its operating environment. It aims to make a contribution as policy-makers and other companies grapple with ways to address the big questions noted above, especially in terms of lessons learned and “best practices.” Some practices—such as maintaining forest reserves and riparian buffers—can be easily copied by companies elsewhere. However, some operational factors and practices are more delicate, including the laws mandating those forest reserves and the complex zoning and land-use planning processes at the higher level of the sustainability spectrum. Finally, some aspects of Agropalma’s context and model cannot be copied or adapted at all, including its complex smallholder model, which is heavily influenced by national and local labor politics, the particularities of Brazilian financial institutions and the long and complex land tenure reform programs over the years. Nevertheless, the case study and its associated lessons offer concrete examples of ways in which sustainability can and does work, and ways in which certain global mechanisms, such as the RSPO, have played a positive role, even though they are not a panacea.

**Issues and Trends in the Palm Oil Industry**

**Palm Oil Value Chain**
A traditional source of food in its native West Africa, oil palm first became known in Europe
during the industrial revolution when it was used as a lubricant for the era’s steam engines and
machinery. Today, palm oil is an increasingly common ingredient found in food, cosmetics, and
detergents that stock the shelves of markets the world over. With around 37 million metric tons
produced each year, palm oil is the world’s most used vegetable oil and demand for this versatile
product is expected to rise even more over the coming years.

**Palm Oil Uses**

Though palm oil has many applications, its most common use—around 80% of total
production—is as an inexpensive food source. Of the 95 million tons of vegetable oil sold
annually on the global market, more than 27.6 million tons (29%) is from palm oil. A very
popular cooking oil, oil palm can also be found in a vast array of food products, including:
shortening, margarine, ice cream, cookies, chocolate, biscuits, crackers, bread, cereals, chips,
soup, sauces, and mayonnaise. Moreover, saturated oil from palm plants represents a healthier
alternative to the much-vilified use of trans-fats.

Palm oil is also used in numerous household products including soaps, detergents, cosmetics, and
pharmaceuticals. In an average supermarket, palm oil can be found in approximately 10% of all
products when accounting for both palm food and non-food products such as toothpaste,

---


shampoo and detergent. Furthermore, as during the Industrial Revolution, palm oil is still used as an important industrial lubricant, as it is cheaper than using petroleum-based products. Finally, palm oil is also gaining popularity for use in the biodiesel industry.

**Market Demand for Palm Oil**

During the past thirty years, global palm oil exports have risen tenfold, expanding from 3.8 million to 36.2 million tons between 1980 and 2009. While developed countries consume the majority of the production, high population growth rates and increased purchasing power in developing countries like India, China, and Brazil are major contributors to the rapidly growing world demand for palm oil. Per capita consumption of vegetable oils for the 2008-2009 period placed the EU-27 at 59.3 kg, the United States at 51.7 kg and developing countries such as India at 13.4 kg, Pakistan at 19.9 kg, and Nigeria at 12.5 kg.

Currently, the largest importers of palm oil by country are as follows:

<table>
<thead>
<tr>
<th>Country</th>
<th>Global Import Share</th>
<th>Million Tons</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>18.8%</td>
<td>6.8</td>
</tr>
</tbody>
</table>

16 Ibid.
17 Ibid.
China | 18.2% | 6.6 |
---|---|---|
EU-27 | 16% | 5.8 |

A factor underscoring palm oil’s popularity is its relative low price. Palm oil has an extremely high yield that far surpasses its competitors in efficiency and cost as it requires less land and energy to produce the same output.\(^{18}\) Per acre, palm oil yields 12 times more oil than soy, five times more than rapeseed, and twice as much as coconut. Additionally, palm oil’s production process is relatively simple and cheap. As a result, the production cost for palm oil is one of the lowest of all vegetable oils.

Coupling population growth, growing per capita demand, and increased use of palm as a source of biofuel, total demand for palm oil is expected to double by 2050\(^{19}\). While the large producers in Malaysia and Indonesia were at first able to meet the increased demand, since 2000, prices have been slowly rising as supply has just not been able to keep up with demand.

**Market Supply of Palm Oil**

In 2005, an estimated 10 million total hectares in palm plantations yielded 37 million tons of palm oil and 2.5 million tons of palm kernel oil.\(^{20}\) The majority of the world’s plantations are located in Malaysia and Indonesia, which contain over two million hectares of cultivations each.


Indonesia is the largest single producer in the world, producing around 44% of total world production, while Malaysia is the second largest, producing 43% of total global production.\textsuperscript{21} However, due to both growing land scarcity constraints in Malaysia and increasingly stringent environmental protection policies in Indonesia, palm oil expansion is slowing down in both of these countries.\textsuperscript{22} Companies have therefore turned to other areas suitable for growing palm in order to plant new cultivations. Asia, Papua New Guinea, Thailand, the Philippines, Cambodia, India and the Solomon Islands all have plans to expand existing plantations, some more aggressively than others.

Companies are also looking to palm’s native Africa to expand their plantations. Expansion figures in Africa, however, are more difficult to ascertain than those in Asia since the oil palm is indigenous to West Africa and much consumption is for localized domestic use. For example, Nigeria contains somewhere between 1 and 3 million hectares under cultivation with only a small percentage directed towards exportation.\textsuperscript{23} Nevertheless, Africa’s potential as a mass producer and exporter of oil palm is clear and some of the leading palm companies are shifting their focus there. For example, in 2011, the largest palm oil company in the world, Sime Darby, leased 300,000 hectares in Cameroon, 220,000 hectares in Liberia and is considering further expansion in these countries as well as Ghana.\textsuperscript{24}

\textsuperscript{23} Ibid.
Compared to expanding production in Asia and Africa, the Brazilian palm oil global market share is a miniscule 4%.\textsuperscript{25} Currently, Agropalma dominates the industry, as it owns 62\% of the country’s total planted area.\textsuperscript{26} Investors are looking to expand the industry; however, Brazil’s strict environmental and social legal codes make production costs higher than in the less regulated production environments of Asia and Africa.

The palm oil industry is undoubtedly experiencing an unprecedented period of steady growth. However, important sustainability concerns related to the industry’s environmental track record in Asia have made the search for means to improve overall sustainability in the industry an increasingly pressing question.

\textbf{Sustainability Issues in Palm Oil Production}

\textbf{Global Sustainability Issues}

Oil palm was first brought to Southeast Asia in 1848, but the plant was not grown commercially in the region until the first decade of the 20\textsuperscript{th} century. It was then when traders arriving from Congo realized that the plant actually grew quicker and produced a fruitier pulp in its adopted home in Asia than it ever did in Africa. Soon after, Southeast Asia began to attract high levels of foreign investment in its burgeoning palm industry. Eventually, Malaysia and Indonesia emerged as industry leaders, albeit at an extremely high environmental and social cost.


Over the past decade, well-documented reports have shown palm oil companies to be at the forefront of severe environmental degradation and social conflict throughout Southeast Asia. Egregious murders of community activists and the destruction of endangered species habitats are only some of the high costs associated with these countries’ growing dominance of the global palm oil supply chain.

Environmental degradation consists of three general categories: deforestation, habitat loss, and carbon emissions. In both Indonesia and Malaysia, oil palm has been an important driver of deforestation as the total number of hectares under palm cultivation has skyrocketed in both countries. In Indonesia, for instance, total palm cultivation has expanded from 600,000 hectares in 1985 to around 6 million in 2007. Current estimates place total cultivations at more than 10 million hectares and growing. Expansion rates in Malaysia are similarly alarming. Between 1990 and 2005, palm oil expansion alone was responsible for 50% of all new deforestation in Malaysia and 56% of new deforestation in Indonesia.

Though deforestation is a concern worldwide, tropical deforestation is particularly important because of its effects on the rich biodiversity that these forests possess. Within Asia, the habitats of endangered wildlife, including orangutans and Sumatran tigers, have been significantly diminished. For instance, Malaysia's natural primary forests normally boast of around 80 different mammal species. However, within the country’s partially degraded forests only 30 mammal species have been found, while oil palm plantations usually contain only 11 or 12.

Similarly diminished numbers are found for other species including insects, birds, reptiles and soil microorganisms. Finally, fires used to clear lands for planting have released hundreds of millions of tons of carbon dioxide, making Indonesia the third highest contributor of CO2 emissions in the world.  

In terms of social conflict, palm oil companies have continually been accused of encroachment on traditional community lands. Of Indonesia’s 220 million people, an estimated 60 to 90 million people occupy lands classified as ‘State Forest Areas’, which cover 70% of Indonesia. While these lands are nominally protected by customary law, they lack formal and legal titles recognized by the national government. As such, there are few mechanisms communities can use to protect their lands. Additionally, the state has often prioritized the needs of the palm oil industry at the expense of indigenous peoples. For example, in 2008, district governments turned over 20 million hectares of land occupied by indigenous peoples to large-scale oil palm plantations. Conflicts continue to this day and, in 2011, the Indonesian NGO Sawit Watch recorded 664 unresolved land disputes involving palm oil companies, 11 of which also involved the participation of the Indonesian military and national police.

Nevertheless, there are some preliminary efforts underway aimed at promoting more sustainable practices within the Malaysian and Indonesian palm oil industry. For example, expansion is expected to slow somewhat in Indonesia over the coming years as a two-year moratorium on

---

forest conversion (2011-2013) is in effect. Nevertheless, the political will behind the law’s implementation is questionable at best as incidents have already been uncovered of politicians granting exceptions to the moratorium to international companies.34

Similar to Asia, increased incidents of “land grabbing” in Africa by palm oil producers are threatening traditional community land. Researchers have found that much of the land being snatched up by big palm companies, while nominally either undeveloped, is actually being used by local communities to grow food. Additionally, some of the land being leased to palm companies, such as to Sime Darby in Cameroon, is actually located within national forests. Not only do these developments raise concerns about deforestation and future community conflict, but also raises questions about food security. Continued diversion of land away from food production and into palm oil could eventually lead to higher food prices and shortages.

**Brazilian Sustainability Issues**

Unlike its Asian counterparts, the palm oil industry in Brazil is a relatively recent phenomenon. Nevertheless, conflict over deforestation and land rights has a long and violent history in Brazil. Past Brazilian legislation encouraged the irresponsible development of the Amazon by enacting tax incentives that encouraged migration and agriculture in the region, both of which led to the mass clearing of primary Amazon forest.

---

Low taxes on agricultural-based income made the conversion of forest into pastureland especially attractive for large-scale cattle ranchers, while the 1964 *Estatuto da Terra* (Land Statute) encouraged migration to the Amazon by promising socio-economic assistance to migrants. These incentives succeeded in doubling the region’s population from 7.3 to 16.6 million between 1970 and 1991; however, the governmental assistance promised to these businesses and migrants never materialized and an effective rule of law was never established. As a result, disorder, lawlessness, and conflict came to dominate the region’s development.36

While past legislation has shaped the Amazon of today, modern day Brazil has a more solid regulatory framework with which to ensure environmental protection of the Amazon. Nonetheless, deforestation and conflict over land rights continue to plague regional development. For example, 36% of Pará’s land still lacks proper documentation. Furthermore, the Pastoral Land Commission, an NGO that documents land conflict in the Amazon, has documented 1,690 ongoing land conflicts in 2003.37

Deforestation rates have shifted based in part on these changing incentives. Deforestation rates have slowed in recent years, but several observers are predicting that the proposed changes in Brazil forest code recently passed by the legislature will result in increased rates and an overall additional loss of up to 76.5 million hectares.38

---

Today, the largest driver of Amazon deforestation is cattle ranching, while the second largest is small-scale subsistence farming. Importantly, logging is not considered a main direct driver of deforestation because it is usually mostly selective and results in forest degradation as opposed to deforestation.

---

A number of Brazilian policy-makers and the Nature Conservancy see palm oil as a potential fix to issues related to degraded lands caused by deforestation and cattle ranching. While palm oil could never replace natural forests, it could serve—in this view—as a way to improve soil fertility and providing a labor-intensive and economically rewarding activity on already degraded lands.

**International Efforts Towards Sustainable Palm Oil**

**Background: Consumer Pressure and Private Governance**

---


The environmental and social concerns in palm oil production identified above did not garner much public attention until the late 1990s. For example, a news search for the key words “palm oil” and “destruction” yields 95 matches on Lexis-Nexis between 1980 and 2000, but 899 articles between 2000 and 2012.

The key factor behind this surge in news coverage was several events and trends in Southeast Asia that gained attention from the news media and watchdog NGOs, mainly in Europe. First, the devastating 1997 fires that engulfed much of the drought-plagued region in smoke—including metropolitan centers like Jakarta and Singapore—were linked to palm oil production by several prominent newspapers. While the El Niño-induced drought was caused by a natural oscillation in ocean circulation patterns, many of the fires that spun out of control were started by people clearing forest for oil palm cultivation. In addition, the issue of orangutan habitat loss began receiving more attention, when a U.K.-based NGO published a report warning that the only great apes in Asia were on the verge of extinction as a result of the fires.

It wasn’t until the early 2000s, however, when media attention galvanized several prominent NGOs to action. In 2002, for example, WWF published a key report on the negative effects of oil palm in Southeast Asia. Then in 2003, U.K. charity Friends of the Earth came out with a report called “Greasy Palms” that made a big splash and had a major effect on consumer consciousness.

---

42 Crace, John. *In Indonesia a huge forest fire is raging, leading to environmental and human tragedy*. The Guardian (London), October 14, 1997.
in the U.K.44 This report coincided with a dramatic rise in the price of palm oil on the commodity exchanges. In March 2002, the price stood at $302.45 per metric ton; by March 2008, at the height of the food commodity price spikes, it hit $1,115 per metric ton.45

As a result of these reports, activists NGOs like Greenpeace began targeting different links in the palm oil supply chain and focusing special attention on major purchasers of palm oil products in Europe including Unilever and Nestle. Graphic advertisements--like broken KitKat bars seeping orangutan blood--led Nestle and Unilever, among other companies, to quickly go into damage control mode. It was against this backdrop that the Roundtable on Sustainable Palm Oil (RSPO) was born.

**The Roundtable on Sustainable Palm Oil**

**Overview**

The RSPO is a non-profit multi-stakeholder organization that was founded in Switzerland in 2004, after an initial meeting in 2003 that brought together conservation NGO World Wildlife Fund (WWF) and other key players. The roundtable’s objective is “promoting the growth and use of sustainable oil palm products through credible global standards and engagement of stakeholders.”

---

Agropalma is considered a “founding member” of the organization, having joined in June 2004. Overall, members represent 40% of global palm oil production companies. The RSPO is a multi-stakeholder initiative, however, and of the more than 600 current members, seven different sectors are represented: oil palm producers, palm oil processors or traders, consumer goods manufacturers, retailers, banks and investors, environmental or nature conservation NGOs and social or developmental NGOs. Unlike other certification bodies, such as the Forest Stewardship Council (FSC), membership on the executive board isn’t determined by three categories -- social, environmental and economic--but by equal representation from the seven aforementioned sectors. This means that industry holds a larger influence than other sectors on the Executive Board.

Overall, 70 percent of RSPO members are palm oil processors and traders or consumer goods manufacturers. Of countries, organizations headquartered in the U.K. have the most members (17%), followed by Malaysia and Indonesia. There was a spike in membership applications and acceptance between 2009 and 2011, but this has since plateaued. The 2011 annual income, which consists of membership dues and contributions, amounted to $3 million dollars. The organization is headquartered in Kuala Lumpur.

Though the RSPO plays a powerful role, as a stakeholder forum and vehicle of exchange and dissemination of “best practices”, the primary instrument used by the RSPO to encourage sustainability are its eight principles and 39 criteria. These form the skeleton of how the RSPO defines sustainability in the industry and structures the monitoring of company compliance. Once a company has joined the RSPO, it can apply to have its practices audited under the RSPO
criteria and thereby become RSPO “certified.” Importantly, being an RSPO member doesn’t mean that compliance with criteria is being audited, although this might be implied, and forms the grounds for some “greenwashing” accusations. There are instances of memberships being terminated, but most are due to non-payment of dues rather than violations.

## Principles and Criteria (P & C) of the RSPO

<table>
<thead>
<tr>
<th>Principle 1: Commitment to transparency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principle 2: Compliance with applicable laws and regulations</td>
</tr>
<tr>
<td>Principle 3: Commitment to long-term economic and financial viability</td>
</tr>
<tr>
<td>Principle 4: Use of appropriate best practices by growers and millers</td>
</tr>
<tr>
<td>Principle 5: Environmental responsibility and conservation of natural resources and biodiversity</td>
</tr>
<tr>
<td>Principle 6: Responsible consideration of employees and of individuals and communities affected by growers and mills</td>
</tr>
<tr>
<td>Principle 7: Responsible development of new plantings</td>
</tr>
<tr>
<td>Principle 8: Commitment to continuous improvement in key areas of activity</td>
</tr>
</tbody>
</table>

## Certified Sustainable Palm Oil

Besides creating this multi-stakeholder forum, the RSPO administers a certification process that is separate from the process of becoming a member. The purpose is to certify compliance with all of the principles and criteria, or their national interpretation, by third-party independent auditors. National interpretations are certified by the RSPO to ensure that they are not too lax; in
addition, certain “compulsory indicators” must accompany all audits, to ensure that key principles are not abrogated. The Brazilian national interpretation was established by Brazilian certification agency IBD, which was also the auditing agency that certified Agropalma’s production. There are 12 independent auditing agencies worldwide that are accredited to conduct certification audits.

The auditing process is conducted for two categories of certifications: grower certification and supply chain certification. The costs of the process are covered by the company requesting certification, and the audit report is reviewed by independent experts also selected by the RSPO. In the grower certification category, producers have 3 years to prove that 100% of their production (including those produced under any nucleus or outgrower scheme) are grown in full compliance with the principles and criteria. (Agropalma has not yet completed this process for its smallholders.) Similarly, companies have 3 years following certification to prove that all subsidiaries come into compliance, following an action plan that is required at the time of the first audit, failing which the member is suspended.

As part of the audit, each violation of a criteria is graded as major or minor; if major, the company has 60 days to rectify it and if minor, the company has until the next surveillance audit, which happens every year.46 Every five years, the certification must be renewed following a thorough audit.

46 Agropalma’s first audit included several infractions classified as minor and none that were classified as major.
Once a mill and/or a growing source is certified as complying with the principles and criteria, all the oil emanating from those sources is considered Certified Sustainable Palm Oil (CSPO) or Certified Sustainable Palm Kernel oil (CSPK). Currently, 11% of global production is CSPO, of which 2.4% from Latin America. In real terms, this amounts to 5.7 million metric tons of CSPO and 1.3 million metric tons of CSPK being produced in the 3 years since the first certifications were conducted. Importantly, the top 10 oil palm producers account for 75% of total certified oil simply because of the sheer volume of their production; Sime Darby alone (the world’s largest palm oil company) produces 30% of the total. Overall, CSPO and CSPK is derived from 1.15 million hectares, and include 30 certified growers and 146 certified mills.
Once the palm oil becomes classified as sustainable, there are several ways that this “certified” oil could move up through the supply chain. The RSPO recognizes four ways of certifying final products derived from RSPO-certified sources: certificate trading, mass balance, segregation, and identity preserved. Under mass balance, for example, certified oil can be mixed with non-certified, but its relative weight is recorded; under identity preserved, the certified oil is kept in separate containers from non-certified, and in full segregation, separate mills process non-certified and certified FFBs. Of these methods, certificate trading is the least costly but the least rigid, since it is in effect a “virtual” transfer of the “sustainability” of the oil. For instance, companies that wish to sell their RSPO-certified oil are allowed to issue Green Palm certificates, which are managed by a U.K.-based company. These certificates can then be purchased by
whoever desires them at a negotiated price. Importantly, the physical certified oil itself is sold separately from the certificates, and may in fact be mixed in with non-certified oil. A buyer like Unilever, therefore, can purchase these certificates as a “virtual” way to support sustainable palm oil production. This is advantageous since the other methods involve more stringent--albeit more expensive--transfer methods.

Since 2008, two-thirds of all CSPO that was purchased by the market was in the form of certificate trading, which amounts to 652,802 certificates and $20.4 million paid by purchasers for the sustainability “premium” that this certificate offers. The price has varied from $50 to $2 per certificate, depending on demand; it is currently low. It should be noted, however, that this figure captures only the certified palm oil that is taken up by the market. Of the 9.1 million tons of CSPO available from inception to present, 4.1 million megatons, or 45%, have been purchased. The rest presumably passes into the regular supply chain and is sold without any premium.

It is important to note, however, that there are rules governing what purchasers can market about their “certified” oil depends on which method of purchase they choose. With the certificates, buyers are only entitled to carry the GreenPalm logo and the statement, “This product contributes to the production of certified sustainable palm oil.” There is no specific number of certificates needed in order to place that logo an any number of products. However, if the method is mass balance, which could have both CSPO and non-CSPO, they are allowed to carry the RSPO label with a “mixed” addition and the same statement as before. It is only for the actual physical

separation methods that a retailer can claim, “This product contains certified sustainable palm oil.” An addition restriction applies in the use of the RSPO logo, however: use of the RSPO trademark is only allowed if 95% all palm-derived components of the product are RSPO certified, and this certification was done via either mass balance, identity preserved or segregation. One cannot include GreenPalm certificates in this calculation, and as noted previously, if mass balance is one of the methods, the word “Mixed” must appear.

Besides the certification scheme, there are several other aspects of the RSPO that deserve highlighting. First, there are the complaints and grievances procedures. Any entity can bring a claim challenging the practices and certification or membership of an RSPO member. Depending on the nature of the complaint, this can be directed to the body that carried out the certification audit or directly to the RSPO Executive Committee. If a complaint is reviewed by the board, it is first referred to a four-member committee comprised of representatives from four different sectors and appointed by the board. Complainants can object to the composition of committee to the Executive Board, and the committee must come to a consensus decision. The committee has 90 days, with 30 days extension possible, to reach a decision. It then offers its recommendation to the Board and the Board makes a final decision. However, in practice, it appears that several outstanding grievances have also been referred to mediation, which can further delay a final resolution of an issue.

Finally, there is a separate assessment process for determining whether an area to be converted to new oil palm plantations is a “high conservation value” area, which would disqualify it under Principle 7. There are currently 74 accredited assessors, mostly paid consultants, who are
accredited based on ISO standards for assessors. The role played by these assessors is crucial, since their interpretations of what constitutes “high conservation value” will in many cases give the green light or put the breaks on deforestation, which is the single most destructive part of palm oil production in many areas. A recent study calculated that the HCV assessment process costs on average between $0.80 and $5.00 per hectare.  

Limitations and Critiques

While there are several examples of the grievance procedure working as a way to resolve disputes, the RSPO has also been criticized by observers who point to either fundamental limitations or issues that could not be resolved.

First, one weakness of the mechanism is its reliance on NGOs and outsiders to bring grievances forward. Put differently, the RSPO has no real active “teeth.” A related complaint is that the RSPO does not use relatively simple techniques like remote sensing data analysis to verify compliance, especially with respect to deforestation.  

This is important since unless an outside NGO brings attention to evidence of noncompliance and abuses by members, the companies can continue with these practices.


Second, if the grievance mechanism ends up working well, it could supplant local government authorities that are often better positioned to play that role. On the investor side, it is also possible that companies may decide not to become certified, since it opens up the possibility of having to deal with endless mediations of grievances.

Third, another critique of the RSPO is that it is too easy to become a member.\(^5^0\) This was a deliberate decision: the RSPO model aims at bringing in a maximum number of stakeholders. However, buyers might believe that simply seeing RSPO member on a Web site or product entails some kind of stamp of approval, whereas in reality, only the RSPO certification process under certain conditions entitles a company to claim that the oil is produced sustainably. In addition, the trademark rules may still be misleading; perhaps a better measure would be if consumers declared the percentage of certified palm oil in their product (WWF).

Fourth, there is a limited demand for RSPO-certified palm oil and for paying the premium via the GreenPalm certificates described above. This could result in the danger of RSPO-certified products becoming simply part of a “niche” market rather than leading to a systemic and broad-based adoption of better practices in the industry.

Fifth, the fact that it is consumer demand for sustainability in Europe that has driven certifications poses a weakness in the long-term. The main reason: India is the largest consumer of palm oil, followed by China and Indonesia. Consumers in these markets by and large are even less sensitized towards sustainability issues than the limited number of European consumers who

\(^5^0\) Ibid.
are. Therefore, its status as a voluntary system makes its “teeth” dependent on consumer demand.

Sixth, environment and social sectors have four of 16 seats in Executive Board, unlike the FSC where social and environmental sectors dominate over “economic” ones. This means that industry is better represented in key decisions than civil society or NGOs.\textsuperscript{51}

Finally, and most fundamentally, the RSPO as a voluntary “private” multi-stakeholder system cannot replace the function of sovereign governments. Those involved in establishing the RSPO argue that the guidelines are never meant to supplant regulations; in fact, the second principle is compliance with relevant laws. In addition, the RSPO was created in part in response to the weakness of governments to act to change practices; as such, the voluntary rules were seen as assuring a minimum standard to respond to consumer concern, while not by any means supplanting the government.

Indeed, some observers believe that ultimately these voluntary mechanisms should transition to regulatory mechanisms. Mining is an example of where this transition appears to be occurring: the Extractive Industries Transparency Initiative (EITI) has given way to compulsory mechanisms such as the conflict minerals provision of the Dodd-Frank bill of 2010 in the United States.

Other Sustainability Trends

Besides the RSPO, there are several other trends that should be noted as part of the current “responses” to issues in palm oil sustainability. First, multilateral development and financial institutions can play an important role in setting the “rules of the game.” The World Bank Group, for example, has supported palm oil investments in the past, and the IFC came under sharp criticism in 2009 for financing a destructive palm oil venture in Indonesia that involved violations of human rights. As a result, they placed a moratorium on palm oil investment and are currently completing a review of their policies and guidelines in a multi-year multi-stakeholder process. Since IFC investments often attract other private investor funding, their leveraging effect can be significant.

Second, it should be noted that there are a plethora of labeling instruments besides the RSPO with relevance to palm oil. The Roundtable on Sustainable Biofuels, for example, which is structured similarly to the RSPO, is important for the Brazilian biofuel expansion policy. In addition, there is a trend of many buyers, such as Nestle, to conduct their own due diligence, or to hire third party NGOs or other auditors to conduct inspections on sustainability issues. This means that there are rarely situations where an RSPO certification alone could satisfy interested buyers.

Third, palm oil continues to receive attention from NGOs in the context of food security policy and large-scale agricultural investments. Brazil’s Vale, for example, has invested considerable funds for palm-based biofuel production in Mozambique. According to a recently unveiled
tracking tool\textsuperscript{52}, in the last decade an area the size of Kenya, in Africa alone, has been leased or purchased for industrial agriculture, including palm oil. Hence palm oil’s current scrutiny extends to Africa in particular, and takes place in a context where “land grabs” are highly contentious.\textsuperscript{53} It should be noted that this context is not only about safeguards, but promotion of palm oil and other crops for food security and development and environmental reasons. This is especially the case in Brazil, where international NGOs like Nature Conservancy have come out in support of the government’s policy to expand palm oil in degraded areas as an environmentally and socially sound decision.\textsuperscript{54} Nevertheless, emerging standards, such as the FAO’s Voluntary Guidelines on these land deals, and the overall debate on land acquisitions, will have an effect on palm oil expansion in perhaps a more significant way than even the RSPO.

Fourth, another contextual issue in the discourse on what to do about palm oil’s negative effects is the relating of the issues to climate change. The RSPO is paying attention to the lack of climate change criteria in its system, while the climate concerns continue to shape the discourse on palm. This has resulted in a shift in emphasis away from biodiversity loss--like the orangutans--and more to carbon. For example, there is an egregious violation in Aceh where a company is flagrantly continuing to deforest a peat bog despite a national moratorium on such practices by the Indonesian government. This issue is framed in terms of climate change, however: even though the threat to the orangutans is mentioned, the main concern is the fact that destroying peat requires nearly 500 years of palm oil to repay the “carbon debt” from the deforestation and draining, and the violation comes on the heals of Norway promising Indonesia

$1 billion in exchange for Indonesia committing to emissions reductions through getting a handle on its palm oil expansions.

Finally, a fifth “trend” of note has to do with the “mainstreaming” of sustainability. So-called “90s-style” CSR, with an emphasis on what critiques would call “greenwashing” or “window dressing,” is giving way to a paradigm shift where environmental and social concerns are not externalities or external issues to “deal” with, in addition to the primary driver of profit, but rather environmental and social issues are seen as equal drivers in creating the conditions for profit. This “mainstreaming” is seen most tangibly in sustainability departments in companies moving out of the communications departments, as is the case with Agropalma, where it’s located in the commercial department. While sustainability as good business has been reduced to a slogan in some instances, there is evidence that it does pay off: a recent study on costs and benefits of RSPO compliance, for example, found that on the whole, compliance created value in the form of access to premium markets, reduction in social conflicts and operational improvements through adoption of sustainable practices.55

What Does Sustainability Look Like? Agropalma’s Model

“To produce and trade palm oil and by-products, in the domestic market and overseas, ensuring the business’ sustainable development, generating wealth and meeting stakeholders’ requirements.” (Agropalma’s Mission)

55 “Profit and Sustainability in Palm Oil Production.” A report by WWF/FMO/DDC. Released April 12, 2012.
Company Overview

Agropalma is a family-owned private company that boasts Brazil’s largest and most sophisticated palm oil production enterprise. In all, Agropalma produces approximately 75% of domestic production in Brazil. However, the Brazilian domestic market is far from saturated and, according to the Government of Brazil, in 2010 the country imported about half of its total consumption. The company strives to be transparent and as such became a publicly traded company, though not on BOVESPA. BOVESPA, Brazil’s stock exchange, requires certain disclosure and governance requirements not met by Agropalma. However, the shares are owned by a single stakeholder, which allows the company flexibility in the funding of innovative and long-term projects, including those related to comprehensive social and environmental sustainability.

Founded in 1982 as the Agropalma Group, then Companhia Real Agroindustrial S.A. (CRAI), is considered to be one of Latin America’s most respected palm oil producers. Agropalma began operations in the northeast state of Pará with the support of the Brazilian Federal Government, which, at the time, had a program of tax incentives for investment in development projects in the Amazon region. Agropalma first focused on the extraction of high-quality palm oil and palm kernel oil in recognition of untapped opportunities in the value-added market.

---

Agropalma has since grown into a company that is involved in “the entire productive chain from the production of seedlings through the production of margarine and special fats.” The company boasts one of the “most modern agro industrial complex[es] for the production and processing of palm oil and palm kernel oil in Latin America,” which includes five factories for crude oil production, one refinery, a biodiesel factory, four laboratories for quality control, and four water treatment stations.

The infrastructure of Agropalma is modern but the processing of palm oil remains extremely labor intensive. The workforce in Agropalma consists of approximately 4,200 employees, 75% of whom are concentrated within the agriculture department. Most of the company operations occur in Pará state in the municipalities of Acará, Tomé, Açú, Moju and Tailândia, though there is also an administrative office in São Paulo. In total the company owns 107,000 hectares of land, which has all been regularized under Brazilian law. Of its total current land area, 39,600 hectares are planted with palm while the remaining 67,400 hectares are set aside as forest reserves as stipulated by Brazilian law.

As of August 15th, 2011 based on available evidence, Agropalma had adequately addressed the previously identified issues with its practices and its plantations and mills had become fully certified by the RSPO.

Sustainability in Agropalma: History and Vision

Through Agropalma’s trajectory it is possible to observe its growth and shifts of its corporate social responsibility policies.

• **1982:** What is now the Agropalma Group operated in agribusiness since 1982 under the name of Companhia Real Agroindustrial S.A (CRAI). It was “a project to develop palm oil plantations and extraction of palm oil and palm kernel oil, in an area of 5000 hectares”.

• **Mid-1990s:** Agropalma’s shareholder saw a potential business opportunity given global trends towards “sustainability” and began investing in the improvement of its social and environmental practices.

• **1997:** Agropalma adopted a policy of “total quality management,” and two years later received ISO certifications, fulfilling the corporations growing ethics component. In the second half of 1997 the Companhia Refinadora da Amazônia (CRA) was inaugurated in Belém. The goal was a diversification of the “products line with the supply of palm oil and refined palm oil, as well as olein and refined palm stearin”.

• **2000:** The company acquired Coacará, which was renamed Companhia Palmares Amazon (CPA), also a producer of palm oil and palm kernel. The Agropalma group consist of five agro-business (CRAI, Agropalma, AGROPAR, Amapalma e CPA, and Cia Refinadora da Amazônia) and has/constitutes a modern system of palm production and processing of palm oil in Brazil.

• **2001:** Increasing media coverage and consumer backlash against the environmentally destructive practices of palm oil companies operating in Southeast Asia prompted Agropalma’s Executive Board to propose a policy of no-deforestation to company
Concern with the company’s overall image and fear that the media campaign could target Amazon companies next, the board decided that cultivating sustainable palm oil would be the best strategic decision for the company’s future and subsequently made the decision to abolish deforestation practices and plant only on lands that had been previously deforested.

- **2002**: Agropalma was invited for informal meetings on the RSPO and went on to contribute heavily to the initial shaping and formation of the RSPO.

- **2004**: The RSPO was officially established in Zurich.

- **2007**: A corporate reorganization of Group Agropalma split the company into two parts—Agropalma S.A. and Companhia Refinadora da Amazônia—in order to achieve greater operational and administrative efficiency.

- **2011**: By mid-2011, all of Agropalma’s plantations and mills had been certified as RSPO compliant.

Agropalma’s corporate social responsibility program, “Responsabilidade Socioambiental” (Social and Environmental Responsibility), consists of various environmental and social programs and commitments. Agropalma conceptualizes its Corporate Social Responsibility (CSR) framework by using a five-pillar model. The five pillars are:

1. Agropalma Values: honesty, transparency, integrity, and concern about the company’s financial health.

2. Full compliance with the laws.

3. Inclusion of local communities or regional state actors in the supply chain.

---

4. Respect for environmental heritage, especially maintaining biodiversity.

5. Educational improvement of stakeholders. Internally, this is vocational training, and externally, it’s down through Peabiru, the smallholder program and the Agenda 21 Palmares.

According to the company, its sustainability practices are a means to achieve an end of maintaining a profitable business. Part of its strategy has been to build a brand that appeals to companies and consumers interested in highest sustainability standards. Agropalma is certainly aware and protective of its brand and works internally, as well as within local communities, NGOs, and labor organizations to maintain its reputation for rigorous standards.

Certification and Labeling Schemes

The Roundtable on Sustainable Palm Oil (RSPO) is one of the most important certifying schemes adhered to by Agropalma, but there are other certificates as well like the ISO 14001 and the EcoSocial Seal. A table of all the certificates that Agropalma diligently adheres to and is certified in can be found below:

<table>
<thead>
<tr>
<th>Type of Standard</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Round Table on Sustainable Environmental Social Quality Certification, verified by an approved third party inspector, that production is performed in compliance with the 8 sustainability principles, 39 criteria and over 120 indicators of the multi-</td>
<td></td>
</tr>
<tr>
<td>Standards</td>
<td>Category</td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
</tr>
<tr>
<td>ISO 9001</td>
<td>Quality</td>
</tr>
<tr>
<td>ISO 14001</td>
<td>Environmental</td>
</tr>
<tr>
<td>ISO 22000</td>
<td>Quality</td>
</tr>
<tr>
<td>OHSAS 18001</td>
<td>Social</td>
</tr>
</tbody>
</table>
best practices for the prevention of occupational diseases and injuries.

<table>
<thead>
<tr>
<th>EcoSocial</th>
<th>Environmental Social</th>
<th>Certification in organic, Fair Trade and stimulating local socio-environmental development according to the demands of stakeholders through the Instituto Biodinâmico.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic Seal</td>
<td>Organic</td>
<td>Certified organic according to the Brazilian standards, laws, and regulations through Instituto Biodinâmico, accredited by the International Federation of Organic Agriculture Movements</td>
</tr>
<tr>
<td>Bio Suisse</td>
<td>Organic</td>
<td>Label according to standards and regulation set by Bio Suisse, private sector federation of Swiss organic farmers with rigorous codes on production, processing and import.</td>
</tr>
<tr>
<td>Japanese Agriculture Standard</td>
<td>Organic</td>
<td>Certified organic according to the Japanese Department of Agriculture based on Japanese laws and regulations in regards to agriculture, livestock, processing, and wild harvesting.</td>
</tr>
</tbody>
</table>
In theory, these certification schemes provide Agropalma’s clients and consumers the accountability they look for in addressing environmental and social concerns and, as such, Agropalma carefully chooses the different standards and certificates in which it participates. In general, Agropalma works to obtain a certificate only when the company perceives a marketing advantage or when the purchasers demand it. For example, Agropalma at one time considered obtaining certification from the Rainforest Alliance, but according to the company, it opted out because this standard overlapped with others and few customers were interested in it. On the other hand, Agropalma participates in organic labels because of high market demand for these products in Japan, the European Union or the United States. In most cases, the certifications the company currently participates in are enough to satisfy the demands of its clients and have strengthened the Agropalma brand. Key costs besides certification include assessments associated with land management, including EIAs and HCV assessments, and costs associated with segregation, depending on the model adopted.
Agropalma’s Sustainability Policies and Practices

What follows is a detailed by not exhaustive overview of Agropalma’s sustainability policies and practices. Some stem directly from adherence to labeling requirements, but most are the result of a combination of legal, internal and other strategic considerations.

Environmental

1. Forest

- Agropalma instituted a moratorium on deforestation in 2001. However, some of its newest acquisitions were built by other companies on deforested land.
- Agropalma complies with Brazil’s legal reserve requirement instituted in 1965: 20-80% of private land in Amazon must be kept in forest reserve, depending on location, and if already degraded, must be restored. Of Agropalma’s 107,000 hectares, 64,000 are forest reserve (60%, above 50% requirement), though these reserves are not in a continuous bloc.
- Agropalma complies with Brazil’s riparian buffer requirement (the APP). Forests near rivers and reservoirs must be preserved in a band on either side whose size varies depending on the width of the water body. Agropalma is bringing newly acquired plantations into compliance through cutting 1,000+ palm trees and restoring forests along rivers and streams.
- In addition to maintaining its own legal reserves, Agropalma ensures compliance of smallholders and outgrowers in terms of their legal reserve requirement. For example, a
The proposed integration of additional smallholder families includes a remote sensing verification of the legal reserve. In addition, each smallholder must prove via remote sensing that any deforestation of primary forest did not occur after 2005, the cut-off date specified under Principle 7 of the RSPO guidelines. The use of satellite imagery represents a practice that goes beyond the RSPO—indeed, the RSPO has been criticized for not mandating verification by remote sensing.

- Compliance with state and national environmental permitting procedures for a company in its class.

2. Biodiversity

- Agropalma has funded biodiversity baseline assessments, including a Conservation International / USP study that found 12 endangered species on company property. According to one inventory, the number of bird species has increased from 338 in 2003 to 406 in 2008, while the number of mammal species has increased from 27 to 37 over the same time frame.  

- The company is currently developing regular biomonitoring protocols

- About 40 “ecoguards” are on company payroll, though they have no authority to arrest poachers

3. Energy and Waste Management

- The RSPO audit identified weaknesses in effluent management (including soak pit leakage), even though they are in compliance with Brazilian regulations

---

66 IBD Certifications Website – Palmfruit EcoSocial Certification
- Methane-capture equipment is being studied in Colombia for eventual adoption to reduce GHG emissions and potentially have additional energy source
- A consultant has been hired for a feasibility study on transforming and transporting liquid effluent for use as a fertilizer
- Mills are self-sufficient energetically (combustion of residue powers thermal electricity generators, 5.2 mW)
- Fossil fuel emissions occur only from transportation and methane from effluents, though the latter will be minimized with capture facility
- Clean Development Mechanism of carbon credit scheme participation was considered, though it was abandoned because of high transaction costs and new project development rules set by the UNFCC.

4. GAP (Good Agricultural Practices)

- Pesticides are only used when an infestation is detected (no prophylactic pesticide usage allowed)
- Best practices in phytosanitation and planting are followed, including use of nitrogen-fixing plant *pueraria*, which enriches soil and decreases erosion [etc., for parallel structure, use verbs and make the points full sentences; otherwise reads like an outline which is odd in the middle of a text]
- Use of fire to clear land is prohibited, even with smallholders, thereby preserving soil fertility and avoiding risk of fires spreading to primary forest
• Organic agriculture uses empty fruit bunches (EFB) as fertilizer. The yields are comparable to those that use mineral fertilizers, though EFB availability is insufficient (5 hectares of conventional provides enough EFB for 1 ha of organic).

• Possible water contamination mitigated by minimizing use of fertilizers and pesticides, and controlling the use pesticides by smallholders

Social

In terms of social and labor practices Agropalma is committed to following all of Brazil’s strict labor codes. For example, one of Agropalma’s points of pride during the research visits to the plantations was that employees had to go through rigorous safety training and wear protective safety gear before being allowed onto Agropalma facilities. These types of labor standards go beyond the laws, standards, and regulations and help protect workers.

Agropalma employs over 4,000 people and less than 1,000 are women, full-time workers. In the agriculture sector, women work mostly in collecting the palm fruit that falls off the bunches when they are being cut. They work in a piecework system and so sometimes make more than the men because they also earn the minimum wage of $300 per month. There was a problem in 2007 where Agropalma attempted to subcontract workers, which meant employers were not entitled to the same benefits and labor protections as contracted workers. The office of the public prosecutor got involved and an agreement was reached in which the 3,5000 employees had to be

---

directly hired. Since these legal ramifications Agropalma has not had a dispute of this magnitude on record. Now, it seems like Agropalma follows Brazilian and international labor standards, which are quite strong. Access to their workers and information about them was quite guarded and difficult to find. However based off of information from interviews with company representatives and Union officials, we can ascertain that the skill level is low, though Agropalma’s social sustainability tries to offer capacity and managerial training for workers and their children. There is safety training for workers to instruct them and prevent harm to them or the company’s image. This is important because in the agriculture sector safety training and equipment are often not provided for workers, even though it is one of the top three most dangerous and difficult industries. The companies motivation may be threefold- the protection of its workers, maintenance of its brand, and maintaining a strong relationship with unions which are extremely powerful in Brazil.

The company has cultivated successful relationships with unions, non-governmental organizations, and other stakeholders from the region. For instance, the President of FETAGRI in Tailândia adamantly expressed that Agropalma and the union had a very good relationship and explained how Agropalma has always seriously considered and addressed the union’s concern. For example, there were problems of alcohol, violence, and prostitution with workers and the community. The company changed its strategy of providing on-site housing to its workers and instead began busing in workers from their own communities, free of charge. This allows employees to live with their families, which has helped to cut down on social issues including

70 FETAGRI Union President. Personal Interview. 15 March 2012.
prostitution and alcohol-abuse. The workforce is made up primarily of men working in difficult labor conditions, as tends to be in the agriculture sector. When asked about the issues of migration in the case of Agropalma employees both the Union leaders and Mr. Dias agreed that this was a non-issue in the case of Agropalma. The workers are from local communities and workers view themselves primarily as Brazilians.

Outside of busing, Agropalma offers a diverse array of social services including education programs, medical and health centers, leisure center, and other social assistance. These programs are for the workers and their families and aim to reduce employee turnover rate while also strengthening the capacity of the community. According to Tulio Dias, extending these services to families and Agropalma employees is good for business because it looks to maintain the health of the employees and because happier communities translate into less employee turnover. Because the team was not given leave to speak with company employees, their perspective on these services was not captured.

Additionally, Agropalma supports the development of local communities through partnerships with local NGOs including the Instituto Peabiru. With Instituto Peabiru, Agropalma is promoting the program Agenda 21, which aims to solve community-identified sustainable development issues in line with the Rio Earth Summit. As of yet, no systematic or scientific impact assessment of these programs has been carried out.

---

Smallholder Program

One of Agroplama’s most studied social projects is its family agriculture program. Family farming is seen as an important vehicle for addressing poverty in Brazil’s northeast, and, as such, became a government priority under President Lula. In 2003, his administration inaugurated the “Palma Verde” (Green Palm) Initiative—a family agriculture program in Pará state—that has since been widely lauded as providing an important means of income for participating families.

The Palma Verde initiative aims to provide farmers with the technical and financial assistance they require to be able to successfully cultivate palm, while also providing incentives to the large companies that buy their product. This partnership between the public and private sector is necessary because without the logistical support provided by big companies, smallholders would be unable to process and refine palm oil within 48 hours after harvesting (after which the palm begins to turn bad). Similarly, without the financial and tax incentives provided by the government, companies would have little motivation to work with smallholders as the profit margin is smaller than if they just cultivate the palm themselves.

Agroplama’s smallholder program, funded under Palma Verde, was developed in partnership with the Banco do Amazônia, the labor union FETAGRI, and the Secretariat of the Environment (SEMA) at the invitation of the state of Pará. The program was conceived of as a pilot initiative aimed at testing the efficacy of this family farming model and trouble-shooting any implementation issues. At the request of the government, Agroplama chose to participate in this project because the initiative not only shows a social commitment to surrounding communities,
but also turns a profit for the company as they are buying a quality product\(^{72}\).

In 2002, 50 participating families planted the first seedlings, and the program has since grown to include a total of about 185 families. Under the Agropalma production scheme, smallholder participants receive many benefits in exchange for their agreement to sell their product to Agropalma. The main program components, which are described below, include: access to land, technical assistance, and financing.

First, under the initiative, the government agreed to expedite the regularization of land provided to each smallholder. The total land supplied to each family is ten hectares, which, according to Mr. Dias, is the amount of land needed for a one harvest to be profitable\(^{73}\). Through its land agency Iterpa, the government agreed to provide land titles to the producer associations, but not directly to the families in order to avoid land speculation.

Second, Banco do Amazônia, with funding from the federal and state governments, provides long-term loans to participating smallholders in the amount of $8,000 Brazilian reales (or around US$4,200) under the PRONAF program. These funds are guaranteed by Agropalma and are enough to cover the labor, machines, topography work (leveling), and seedlings—which are provided at cost by Agropalma—needed to establish the new cultivations\(^{74}\). The loans also provide the family with income for the first two years of cultivation, during which the young palm plants do not produce fruit and yet require fulltime care.

\(^{72}\) Dias, Tulio. Personal Interview. 21 March, 2012.
\(^{73}\) Ibid.
\(^{74}\) Ibid.
Third, as palm is not native to the region, most all of the smallholders need to receive technical assistance in order to be able to successfully cultivate their crops. This technical assistance was originally intended to be provided by EMATER, the government’s rural extension agency, however, EMATER completely lacks the financial and human resources required to fulfill this task.\footnote{Moju Agriculture Secretary. Personal Interview. 16 March 2012} As such, Agropalma hired five-full time field staff, in addition to its normal support staff of engineers and administrators, who now provide assistance to the families.

In spite of all of the support provided by both Agropalma and the government, the smallholder program has encountered difficulties in attracting applicants. For example, the first round of plantings was intended to include many more families than the 50 who ended up participating. Agropalma believes the factors underlying these rather lackluster participation rates are two-fold. First, as stated before, palm is an exotic plant that is, for now, unknown in the region. As a result, for many, the idea of signing onto such a large loan in order to plant an unknown crop can be daunting.

Additionally, the application process for integrating new families into the program is complex and involves the active participation of many stakeholders. Agropalma first vets interested farmers. Selected applicants are then assessed by the Banco do Amazônia, and their assets and capabilities confirmed by the local trade union. If the farmer is approved by both the Bank and the trade union, their names are then submitted to the government as candidates for the allocation of land and for the provision of a loan.\footnote{Salette, President FETAGRI, Moju. Personal Interview. 16 March 2012} Consequently, this lengthy and bureaucratic process could be another factor underlying the limited application rates of families.
Importantly, and not unexpectedly given its status as a pilot program, Agropalma’s smallholder project has not been without criticism. One of the most common complaints from labor leaders is that Agropalma discourages the farmers it works with from planting food crops alongside the palm, as they believe it diverts necessary attention away from the palm. However, for some observers, the ability of these farmers to plant food crops is a means to ensure food security for the region. As a result, new government smallholder programs are now encouraging crop diversification in order to ensure the food security for participating families. However Agropalma is, at this time, not interested in promoting crop diversification.\textsuperscript{77} While they cannot force the smallholders to plant only palm, they strongly encourage the smallholders they work with to do so.\textsuperscript{78} Again, as the researchers were not given access to smallholders, the desire of this group to grow alternative crops along with their palm is unknown as well is the. Additionally, the extent to which they have bargaining power to address these issues with Agropalma is also unclear.

\textbf{Why be Sustainable? Motivations and Contextual Factors}

Agropalma’s sustainability policies and practices don’t exist in a vacuum. They are shaped by multiple motivations and contextual factors, including the company’s culture, its business environment, Brazil’s legal and regulatory environment, the RSPO, and local and state institutions. Understanding these factors is key to contextualizing the practices and thereby drawing lessons that could be relevant to other companies.

\textsuperscript{77} Dias, Tulio. Personal Interview. 21 March, 2012.

\textsuperscript{78} Dias, Tulio. Personal Interview. 21 March, 2012.
Company Culture

Norms within Agropalma are a key motivating factor for its sustainability practices. The company values its image as being rational, law-abiding, conscientious, and progressive, with a relentless focus on improvement, quality and transparency. Its values are not unlike what one would expect from a family business: they build relationships with clients, which offers them a competitive though not a price advantage. They are certainly not a charity, but rather aim to garner a respectable return and a good quality product, which they have done by mainstreaming sustainability practices that resonate with their clients and upholds their image. Among these norms is a conservative concern for the bottom line--respectable profit, but not maximized at all costs--in addition to acting as a responsible company to make the country and stakeholders proud. In other words, it appears as if Agropalma's norms are not cynical, although they remain strategic and concerned with the bottom line. Perhaps as a result of the effects of company culture, the company has adopted many practices on its own accord, and not as a result of pressure, and this has perhaps "preempted" potential antagonistic stakeholder interests.

This makes the company somewhat idiosyncratic compared to giant conglomerates, but it has also played a key role in why Agropalma was such an early adopter of progressive policies. In 1997, in a precursor to its sustainability policy, shareholders adopted the policy of “total quality,” and its initial labeling adhesion to ISO standards fit into this policy. In addition, the late 1990s and early 2000s also saw the emergence of controversies in palm oil in Asia, and shareholders both saw a risk (tarnishing of the industry’s image) and an opportunity (position
Agropalma as an alternative). Therefore in 2001, the deforestation moratorium was proposed to shareholders, and partially as a result of these early efforts, the company was invited to early meetings that eventually led to the establishment of the RSPO. Unlike larger companies, Agropalma was not reacting to direct pressure that it faced, but rather following international trends and adopting the policies out of prudence and out of reputational concern.

Therefore, while business reasons should not be understated, the company’s values, norms and culture have played a key role in its practices.

**Brazilian Regulatory and Policy Environment**

Brazil’s legal, regulatory and policy environment is a key contextual factor for Agropalma’s operations. While labor and environmental laws have a very direct effect on the company, political and policy considerations are having an indirect impact.

**Labor and Environmental Laws**

The development of the Amazon is subject to many laws and regulations. While enforcement capacity and will is not always present, Agropalma’s policy of strict adherence to all laws is a major and direct motivational factor for understanding its sustainability practices.

For example, Agropalma is under legal obligation, per the second article of the 1965 Forest Code, updated in 1993, to maintain what is called Areas de Preservação Permanentes (APP).
APPs are mostly riparian buffer zones—areas along streams and rivers that cannot be deforested in order to preserve hydrology—that range between 30 and 100 meters depending on the width of the river. There are also APP designations for areas with a steep slope, as a way to avoid soil erosion, and other small water bodies. Overall, weak enforcement mechanisms have resulted in continued deforestation and degradation of these areas in many parts of the Amazon. However, Agropalma has taken a proactive approach to bringing all of its areas into compliance. Since violations were identified, the company has developed a recovery plan for the degraded APPs, including clearing planted oil palms in some areas and restoring native vegetation.

Labor and environmental laws are also key constraints on Agropalma’s activities. For example, its smallholder program has not expanded as rapidly as possible in part because of the numerous legal hurdles, including the need for smallholders to receive an official designation that they are a smallholder, and the need to ascertain and prove that each parcel, no matter how small, has the required forest reserve requirement. A full list of legal and environmental laws is found in Annex 3. Brazil has a strong Partido dos Trabalhadores (PT) from which the previous and current President rose from. The party is highly regarded as having made significant contributions from Brazil’s previous military rule to democratization. The workers movement and syndicates are, unlike in the U.S., highly considered and regarded. Therefore workers rights and laws and regulations substantiating this are stringent compared to other countries. It does not seem like a viable option for Agropalma to disregard the laws, unions, or the rights of its workers in an effort to cut costs like is done in South East Asia. This move would be detrimental to the company in many ways and its survival would be questionable.

Land Tenure

Another important contextual element besides compliance with laws concerns land tenure. While land issues date back to colonial times, the most relevant aspect concerns the National Institute of Colonization and Agrarian Reform (INCRA), founded in 1970 to manage land reform policies. At the time of INCRA’s creation, however, rather than promote equitable land distribution to the country’s poor INCRA instead encouraged the colonization of the Amazon and became one of the largest drivers of deforestation. In addition, there have been investigations concluding that the agency has colluded with logging companies and that many “settlers” are in fact outsiders who gained access to the land in order to extract its resources.

Para has a state agency, Iterpa, which is also charged with land reform at the state level. However, these agencies haven’t coordinated sufficiently, and as a result, procuring land that has a clean title is extremely difficult. This is relevant to Agropalma in several respects: first, as mentioned earlier, it makes it more difficult for smallholders to integrate into the program. Agropalma has taken an active role in facilitating titles, or working with INCRA in settlements whereby the land belongs to an association, and the smallholders gain access through membership with this labor union. However, the process is a big hurdle.

The other effect of the land tenure issues is that gaining access to land in general is a challenge, and beyond economic incentives, adopting smallholder schemes is one way to access productive land over which it might otherwise be impossible to obtain full ownership. This is happening with the large expansion into palm oil by Vale Biopalma, who cited this issue of finding suitable
and available land as a key reason why they intend to incorporate thousands of smallholders into their model. The Government is also actively promoting these practices through tax and financial incentives because of the benefits regularizing land for rural farmers.

**National Palm Oil Expansion Policy**

A final important contextual factor with respect to Brazil’s legal and policy environment is the palm oil expansion policy at the national level. In 2010 Brazilian President Luiz Inácio Lula da Silva announced the “Program for Sustainable Production of Palm Oil” to promote sustainable production including the prohibition of the cultivation in “any area with native vegetation, including the Amazon region.” The objective of the program was “to regulate the expansion of palm oil production in Brazil and offer tools to guarantee a production based on sustainable environmental and social conditions”. The Government of Brazil (GOB) explained that the “most significant component of the program is the proposed bill outlining new agro-ecological zoning rules for palm oil, coordinated by the Brazilian Agricultural Research Corporation (Embrapa)”. Under these new zoning rules it became illegal to plant palm in 96.3% of the National Territory. Instead producers were to expand production into previously deforested areas with an emphasis on degraded land. In most cases this degraded land had previously been cleared for cattle ranching or sugar cane production. In addition the Program for Sustainable Production of Palm Oil established “credit lines and technical assistance for producers as well as funds for agricultural research and innovation.” In all the government invested R$ 60 mm in technical capacity development and infrastructure construction incentivized as an added incentive and vehicle for sustainable development.
This national policy has not had a direct effect on Agropalma’s practices, since it has not yet taken advantage of the financial incentives in the smallholder program (though it plans to in the next phase), and despite a brief experiment with biodiesel production, has opted to stick with edible palm oil production, and other refined products. However, the expansion will likely have other indirect effects brought about by new players operating in the region. These new actors could put pressure on resources including land, labor, supplies and smallholder production. Increased competition for resources, however in Agropalma’s view, could also drive companies to adopt better standards as they compete for workers, niche, and technology.

**Business Environment**

An additional contextual factor important for understanding Agropalma’s practices is the business environment, both within Brazil but also internationally, when it comes to palm oil. Palm oil prices are set on an international commodities exchange, which means that a palm oil producer can increase profits only by lowering its production costs or increasing its total production volume. In this respect, Agropalma is disadvantaged vis-a-vis its international competitors because while international commodity prices place an upper limit on Agropalma’s profits, the Brazilian government and economic context places a price floor on its production costs, mainly in the form of Brazilian social and environmental legal requirements, and general high costs related to additional social charges and taxes leveled on companies for each worker. These in turn make Brazil one of the most expensive places to operate.
These operational costs can be thought of in terms of three broad categories: labor, financing, and land. First, relatively high salaries, social security provisions, and occupational safeguard requirements translate into high production costs. The cost impact of these requirements is comparatively large in the labor-intensive palm oil industry. Second, traditionally high interest rates have slowed new project investments by increasing financing costs for Brazilian firms. Third, land conflicts, ineffective land titling, and legal restrictions to deforestation represent a very real cost that limits the availability of a critical input for palm oil – land.

Consequently, Agropalma has had to explore alternative paths when it comes to securing its market position. This business strategy has included focusing on small-quantity purchasers, diversifying into value-added products, and targeting niche markets, including those that care about sustainability. The first two are not directly related to environmental or social sustainability: since many smaller palm oil buyers in Brazil cannot do business with the huge oil importers, they are willing to pay a bit more for reliable and smaller batches from a Brazilian company. This is linked to the emphasis that Agropalma places on its relationships. In addition, the company has increasingly branched out into palm-derived products higher up the value chain, and has plans to expand its refining capacity to meet growing demand. (Currently, about 30 to 40% of its crude oil is refined and converted to other products, some developed by the company’s research and development division.)

It is the third strategy that is especially important from a sustainability point of view, mainly, targeting niche markets. About half of Agropalma’s corporate clients customers, mostly
domestic, care about sustainability. Many send their own due diligence teams to do their own assessments based on their own criteria. However, the RSPO certification, among others, adds to the reputation of the company as a leader in this market, creates external validation and legitimacy, and thereby helps give it a competitive marketing advantage. In this sense, Agropalma’s status as a small producer on a global scale operating in an expensive and highly regulated country has pushed it towards sustainable practices as a business survival – or economic sustainability – tactic.

The RSPO

As noted above, the RSPO plays a key role in disseminating best practices and creating a forum where regional and international stakeholders can collaborate and exchange. This has led to several impacts on Agropalma’s policies. For example, the company had previously thought that maintaining forest reserves was enough of a good practice for biodiversity. However, exchanges with experts at RSPO conferences made the company aware that a more active approach was needed, and hence they sought out the partnership with Conservation International and others as a way to improve their biomonitoring program

Similarly, greenhouse gas emissions were not a large priority for the company prior to learning about the possible capture of methane, which is far more potent than carbon dioxide and is a major byproduct of effluent treatment. Therefore, Agropalma is exploring with Colombian colleagues met during RSPO events the possibility of establishing a methane capture facility in its effluent treatment soak pits.

---

80 Interview with R&D director, Agropalma farm, March 20, 2012.
Finally, and most important, the RSPO’s principles and criteria, and their local articulations formulated by IBD, form a strong basic consideration in all of the company’s endeavors. One such example has already been mentioned: smallholders are required to verify that no deforestation has occurred in their parcels after 2005, which is the cut-off established by the RSPO.

**Local Environment**

The local environment is a final contextual factor worth mentioning, and include state policy and institutions, local institutions and relationships with organized labor. On the state level, Agropalma has until recently maintained a dominant position in the palm oil industry, but is now confronted with the large new players like Vale and Petrobras. This has catapulted palm oil to the top of the policy agenda, and by virtue of its experience, Agropalma stands to influence future developments in the sector. (Agropalma’s role in the sectorial chamber on biodiesel, though national in scope, is also important to underline.)

At the state level, palm oil is a priority in the government, primarily because of its potential to create employment. The government estimates that the cultivation of oil palm generates one job for every 10 new acres of palm. In comparison, an industrial soy farm typically has one worker per 500 acres, while a cattle ranch often has only one worker for every 1,000 or more acres. In addition, the state has adopted the national zoning mechanism developed by Embrapa as its policy. As noted above, this agro-ecological zoning process involved identifying degraded lands suitable for palm oil production, and up to a million hectares have been designated as well-suited...
for this process.

Several issues at the local government level include currently poor infrastructure, especially roads outside of the plantation, and the issue of government turnover which makes policy continuity an issue. Finally, labor unions are very dominant at the local level, and most support Agropalma because of its history of good relations with the unions themselves and adequately addressing, in the point of view of the union, the labor concerns put forward. Their role in the smallholder program, especially INCRA settlements, was already highlighted.

**Sustainable Palm Oil: What Lessons from Agropalma’s Model?**

Having examined social and environmental sustainability issues in Brazil and globally, trends and mechanisms to deal with them, the specifics of Agropalma’s practices and finally their motivational and contextual factors, we now turn to some of the broader implications and lessons that can be drawn from these findings.

**Local Laws, Policies, Institutions as Paramount Sustainability Driver**

While Agropalma’s behavior has been shaped by the RSPO’s principles and criteria, and other elements of “private governance,” the case of Agropalma shows the fundamental role of governments in creating the space in which companies operate. Brazil is the only country among palm producers that require forest reserves, for example, and of all the practices, this is perhaps the most important, given that deforestation and concerns with monoculture are fundamental ecological concerns. While Brazil’s application of its myriad laws and regulations in the Amazon
has an uneven track record, despite a strong role played by environmental activists and public prosecutors, the existence of the laws was sufficient to motivate Agropalma. This was due to its corporate culture that values abiding by all the rules, in addition to the second RSPO criteria, which requires compliance with all applicable laws. Hence the case of Agropalma shows firstly how the legal framework in the country of operation is fundamental.

This observation may seem banal, but it touches upon a real tension that can exist between public and private governance. In one sense, the RSPO emerged as a response to the lack of adequate governance in Southeast Asia: major buyers like Unilever were coming under pressure from NGOs and consumers for their suppliers’ behavior in Malaysia and Indonesia, and they sought a solution, but were unsure what to do, since the application of laws and setting of policy is the domain of governments, not companies. While blatant violations of laws existed, some of the problems were the result of government policy and laws. The RSPO was therefore born in some ways as a result of governance failure.\(^{81}\) The same issues are emerging in Africa as part of land deals: often compliance with weak laws is not enough to ensure sustainability, since appropriate laws and their application are flawed or nonexistent. Hence private governance mechanisms, as Agropalma’s sustainability director observed, can offer “minimum standards” that in some cases are less than and some cases more than a given country’s laws.\(^{82}\) In the case of Brazil, the standards are in most respects less than what is required by Brazil’s regulations.

However, Agropalma’s case also shows the importance not just of laws but in their application. As noted above, the company’s compliance with all laws is unusual in a region known for weak

\(^{81}\) This is the opinion of Reinier De Man, Director, Sustainable Business Development, Netherlands, who was involved in the RSPO’s founding. Source: “How can (or should) large scale investment be regulated and monitored?” Panel discussion. Land and Poverty Conference. World Bank, Washington D.C. April 25, 2012.

\(^{82}\) Tulio Das, interview, Belem, March 21, 2012.
governance, especially in other industries like cattle ranching and illegal logging. If Agropalma was not motivated by its own values and internal policies or its adherence to the RSPO standards, it is possible that its practices would be less robust. For example, the company could easily get away with its current effluent treatment procedures, which are in compliance with SEMA, the state environmental regulator. However, the RSPO audit found this to be a non-major instance of non-compliance, and in addition, the company is going above and beyond to improve its effluent management.

This is an important take-away since the focus in palm oil sustainability has been primarily centered on the private sector actors at various stages in the value chain and on consumer behavior. However, without an emphasis on strengthening laws, policies and their applications, especially in “frontier” environments like parts of Africa with particularly weak institutions, the overall goal of avoiding the problems of Asia will fail. This is also of importance for the future of the RSPO itself. Drawing parallels with how voluntary schemes like the Kimberly Process have evolved, it can be argued that such voluntary measures should pave the way towards compliance measures at national and international levels, such as the provision in the 2010 Dodd-Frank bill in the United States with respect to “conflict minerals.” However, the evolution of these types of international certification schemes, like the RSPO, has not been easy and it is still unclear whether their work is truly reflective of the vast number of stakeholders involved in the process. Whether this transition occurs depends on continued activism, as was the case with Dodd-Frank, and also on the level of involvement of governments in these multi-stakeholder processes. Nevertheless, the lesson could be that the only durable solution with palm

---

Oil is for importing and exporting countries to mandate and enforce rules such as those laid out in the RSPO, thus dealing with the criticism that the mechanism, despite its grievance procedures, has no teeth.

**The Importance of Land Use Planning and Sound Policy**

As noted in the introduction, sustainability considerations take place on multiple levels and in multiple arenas that are often conflated or confused. At a basic level, one must separate between the decision to develop a new planting or not, and once a planting is established, how one organizes and operates the new plantation. For example, while Agropalma’s current plantings may be sustainably operated and organized, by using best labor and environmental practices, one might argue that the plantation can never be truly sustainable if the land was deforested in an irresponsible manner. In the case of Agropalma, the company has not conducted clear-cutting since 2001 on its properties, though it has acquired existing plantations that had used clear-cutting in the past.

In terms of obligations under the RSPO, Principle 7 covers the issues of “responsible development of new plantings.” While national articulations vary, it is generally prohibited to destroy forest that is of “high conservation value” and that which is primary or virgin forest. One weakness is that the definition of HCV and degraded forest versus non-degraded forest is subject not just to manipulation but also well-intentioned differences of opinion among third-party accredited experts. The RSPO is working on these definitional issues.
However, the case of Agropalma shows that at the end of the day, companies alone—and by correlation, the RSPO—cannot be put in a position to determine sustainability at a macro level. This can only occur in the context of sound land-use planning and zoning procedures. While this is not directly related to Agropalma, the current agro-ecological zoning process for palm oil expansion for biodiesel being conducted by Embrapa, which is identifying appropriate palm oil land that is on already degraded forest, is a sound approach that goes beyond what any single company does. Similar approaches would be strategic environmental assessments and multi-scale multi-stakeholder participatory land-use planning processes, involving a combination of independent experts, NGOs, business interests and national and state level policy-makers.

In the case of the Embrapa zoning, its approach was primarily technical—focusing on areas suitable to production—and perhaps didn’t take sufficient time to examine the tenure and socio-political dimensions, or the ecological aspects, in terms of priority corridors near degraded areas or areas that could be restored. One reason for this had to do with the fact that Embrapa is a technical agency, and not a political one, and finding a suitable structure that is legitimate and also technically competent is not an easy endeavor. Nevertheless, the zoning approach is an example of a policy process that goes beyond obligations of Principle 7 and which is essential to long-term sustainable land use.

When it comes to how to organize plantations spatially once the larger land-use planning process is complete, there are several lessons from Agropalma and Brazil that could be relevant elsewhere:
1) Locating farms within sufficient distance from existing towns or villages, and encouraging workers to live in these communities with their families rather than in “company towns,” is a good practice. As noted earlier, when Agropalma disbanded its centralized housing for workers and started bussing workers who lived in neighboring communities, complaints with regards to prostitution and tension between migrants and locals were greatly reduced.

2) Adopting a mosaic rather than a massive plantation approach is a practice of Agropalma that is absent from RSPO guidelines and best practices elsewhere with respect to new plantings. This “micro-zoning” is fundamental to establishing distances between forest reserves to allow migration, interconnectedness between forest reserves, identification of high priority ecological microzones, controlling erosion, maintaining hydrological resources, keeping buffers in the case of disease outbreaks, among other considerations. Adoption of even some of these practices in the legal codes of other countries or regulations as part of the RSPO or multilateral investment guidelines could bring numerous environmental and phytosanitary benefits, and combined with social considerations, could go a long way in addressing criticism against oil palm. Even Agropalma could have done better by undertaking a rational and planned approach based on multiple considerations of where to place forest reserves and plantations.

In these ways, this case study offers key insights into how zoning and land use planning are fundamental tools in ensuring sustainability on a broader level. Since this is primarily a political
process, it must be driven through policy, laws and politics, but non-government mechanisms like the RSPO also play a key role, especially with respect to micro-zoning considerations.

**The RSPO: Limits, Challenges, Opportunities**

Another key lesson from this case study concerns what can be learned about the influence and limits of the RSPO. Some insights have already been highlighted, mainly, the fact that the RSPO plays a key role in setting minimum standards, but that its role as an extra-governmental mechanism makes it such that it can never in and of itself assure sustainability in the industry.

Agropalma also raises another question about sustainable palm oil production in general, mainly, whether CSPO and certification in general will largely remain a niche market for those consumers willing to pay a premium for good practices. As noted above, one of Agropalma’s motivations for becoming certified with the RSPO was helping ensure access to this premium market. Its other certifications are even more targeted: organic certifications are tailored to individual markets, for example. The choice of certification depends on the particular buyer, and some buyers, like Natura, have their own long-standing policy to send their own teams to audit the company’s practices.

It’s important to underscore that Agropalma is not just a niche sustainability producer—only about half of its current clients really care about sustainability—and also that Agropalma’s adherence to the RSPO is not only a market access tool, but is linked to reputation and risk management as well. Nevertheless, the bigger question remains: to what extent is certified
sustainable palm oil a niche market, and what does this mean for the potential for overall sustainability in the industry? While there is no doubt that there exists market demand for CSPO, the relative low “uptake” of this oil globally—currently less than 50 percent—does call into question the overall strategy. Even if major purchasers like Unilever follow through on their commitments to purchase only CSPO by 2015, it’s unlikely that all other purchasers will follow suit. This is especially true in countries, like Indonesia, India and China, where consumer consciousness about palm oil’s negative impacts is underdeveloped. But even in markets like Europe, which is fourth in terms of consumption, relying on consumer demand to transform a whole industry is arguably insufficient.

This is linked to one of the main criticisms of the RSPO, mainly, its lack of “teeth.” As noted previously, it does have grievance procedures in place, and can exert pressure on members through the threat or actual expulsion. This “soft power” can indeed have an impact: When another palm oil company in Honduras, also called Agropalma, was applying for RSPO membership, Brazil’s Agropalma challenged its application on the grounds that it was involved in an ongoing land dispute. Through this action and activism by other civil society actors, this company was brought to account. But for large companies in Indonesia, for example, the threat of or actual expulsion from the RSPO may not be sufficient, since because of their mostly domestic consumer base, not being a member is not a threat to its fundamentals. In the case of Brazil, a similar issue is at play with the new players in palm oil—like Vale and Petrobras—that will soon eclipse Agropalma in terms of production. Yet because they will produce biodiesel,
and because they don’t have plans to export their output, they have little interest in joining a mechanism like the RSPO, or even the Roundtable on Sustainable Biofuels.\textsuperscript{84}

The point echoes the first “lesson” above, mainly, that private governance mechanisms like the RSPO can have an effect, and can tap into a specific niche market, but until RSPO certification is widely adopted as the base and not as a “plus,” the industry overall will not change significantly enough. This is not to downplay the power that peer pressure and knowledge exchange can exert in the right conditions. As noted above, Agropalma’s involvement in the RSPO has demonstrably improved its practices, notably with its biomonitoring and increased awareness of greenhouse gas emission issues.

\textbf{Role of Partnerships}

Another key lesson from the case of Agropalma is the crucial role played by partners, mainly, the Instituto Peabiru and Conservation International, who have collaborated on the social engagement and smallholder program, and the biomonitoring efforts, respectively. While Agropalma emphasized that it was not in any way “outsourcing” its responsibilities, it did acknowledge these partnerships as important. In the case of Peabiru, the NGO brought expertise in grassroots community development and helped confer legitimacy on the engagement. With Conservation International, similarly, expertise that did not exist inside Agropalma was brought in, and Agropalma also benefitted from association with a well-respected name.

\textsuperscript{84} According to Joao Mendez, Vale’s sustainability director for palm oil, the company has no interest in joining the RSPO, although the question of the RSB was not posed.
The key lesson is simply that partnerships can play an important role in: (a) adding expertise that may not exist within the company; and (b) creating a more legitimate process. However, as Agropalma pointed out, this should not be an excuse to “outsource” responsibilities, i.e., by simply giving a grant to some NGO and then “washing one’s hands” of all other engagement. In addition, in order for there to be legitimacy, there must be a certain amount of distance maintained between the partner and the company. The Instituto Peabiru acknowledged that there was sometimes debate within the NGO about whether receiving funds from Agropalma compromised its independence. The point is that often a certain amount of tension or ambivalence is positive, since it helps maintain legitimacy in the eyes of other stakeholders by assuring them that the NGO is not just engaged in “greenwashing” or worse. In this sense, Agropalma could do even better, mainly, by allowing a comprehensive impact evaluation using international best practices to really assess its economic impact on surrounding communities.

**Sustainability as Good Business: Beyond Niche Markets**

The final big picture lesson from the case of Agropalma concerns an overall paradigm shift in sustainability. Agropalma is a particular case: it’s a small company, effectively under private ownership, which reduces its need for maximizing profit margins at all costs. In addition, its high operating costs and the Brazilian business environment are a key motivation for its practices as a way to target the premium market. Along with its particular company culture, and its norms and values, these factors give the company more reason and more space to act as sustainably as possible.
This may suggest that Agropalma is so unique that broader lessons about sustainability are difficult to draw. However, a broader and perhaps more important take-away concerns a definitional shift in what is sustainability, or corporate social responsibility, for that matter. While its reasons may be unique, Agropalma exemplifies a paradigm of CSR that has mainstreamed sustainability concerns into its core business vision and operational strategy. This mirrors a positive paradigm shift in sustainability overall from so-called “nineties” style CSR, which was typically run out of a company’s public relations division, and newer forms of “sustainability management,” run by independent departments or cross-departmental structures with real operational influence.

The organizational position of the sustainability director—part of the commercial department—shows to what extent Agropalma has made this shift structurally. But beyond organizational position, the philosophy behind the company’s practices is worth emphasizing. For the sustainability director, none of the company’s actions are taken out of a sense of responsibility or benevolence. Instead, every action must be justified as a sound business decision. Part of the rationale for this is out of a self-preservation instinct: should the company experience economic difficulties, non-essential operations will be the first to go, and therefore sustainability programs must be justified as essential. However, it goes beyond this, since the practices touch all levels of the operations, from occupational safety to commercial strategy.

A prime example is the recent efforts to deal with greenhouse gas emissions and effluent treatment more generally. Reducing methane emissions from the soak pits, and also exploring ways to treat and recycle liquid effluent for use as a fertilizer, are not made out of concern for the
planet, but because it offers a good opportunity to improve practices and, in the long term, could save money and other resources. This isn’t to underplay the other motivations, including reputational and the positive image effects, but the point is that these practices are grounded in a more pragmatic rather than lofty vision of what sustainability is: it’s about staying in business for the long term, and a recognition that without attention to the environment or social conditions, chances for this success increase.

**Conclusion**

In conclusion, the case of Agropalma offers a rich picture of sustainability in palm oil production in a particular context, but also offers insights into the industry more generally. As noted in the introduction, concerns about the environmental and social impacts of palm oil touch not only the industry itself, but also some of the most urgent questions of our time—from food security to climate change to land tenure. While every context is different, there are key lessons that can be drawn by looking deeply at the company’s motivations and operating context. These include:

- There are some relatively simply up-front practices that can make a tremendous difference for long-term sustainability, notably, the inclusion of forest reserves and paying attention to how plantations are micro-zoned to protect ecosystem services, reduce the risk of disease, and ensure local livelihoods. These should be integrated into the legal and regulatory frameworks of countries, investors and multilateral institutions.
- Sustainability takes place on multiple levels, and one must not confuse sustainable operational practices post-planting to big picture sustainability, which must include a
process of land-use planning and strategic environmental assessments at the regional and country level.

- Institutions and governments are still paramount, especially since in most cases, enforcement is the only way to make good practices the norm. Agropalma’s relatively strict environmental and labor legal environment in Brazil is limiting from a business perspective, but it’s fundamental to its sustainability.

- Private governance mechanisms offer effective environments for norm-setting and information exchange, but relying on consumer-driven demand for sustainability is insufficient without command-and-control measures as well.

- Sustainability should be viewed through a pragmatic lens: good environmental and social practices are about good business, and should be viewed as such.

Agropalma, though a particular case, offers a unique and insightful lens on these issues, and its experiences and practices should be of relevance as policy-makers grapple with how to ensure that oil palm production not only avoids negative impacts, but creates positive ones.
COLUMBIA UNIVERSITY
SCHOOL OF INTERNATIONAL AND PUBLIC AFFAIRS
WORKSHOP IN DEVELOPMENT PRACTICE
Preliminary Terms of Reference

Fall 2011 – Spring 2012

Project Title: PROMOTING ENVIRONMENTAL SUSTAINABILITY AND LABOR STANDARDS IN BRAZIL’S BOOMING PALM OIL INDUSTRY: THE CASE OF AGROPALMA IN PARA STATE

Client/Host Agency: Agropalma
www.agropalma.com.br

Client Contact: Mr. Tulio Dias
Manager, Social and Environmental Responsibility
Agropalma
Phone: +55-91-4009-8109
Email: tuliodias@agropalma.com.br
Office in São Paulo, Brazil:

Alameda Santos, 466 10. andar
Cerqueira Cesar, São Paulo, SP
cep 01418-000
Phone: +55 11 2505-6400

Palm Oil Refining Industry in Pará, Brazil:

CRA – Cia Refinadora da Amazônia • Belém, Pará
Rodovia Arthur Bernardes Nº 5.555
Bairro Tapanã
cep 66825-000
Phone: +55 91 4009-8000

Palm Oil Agro complex in the city of Tailândia, Pará, Brazil

Complexo Agroindustrial • Tailândia, Pará
Rod.PA 150 s/n Km 74 esquerdo
Tailândia, Pará
cep 68695-000
Phone: +55 91 4009-8199

Research Partner: Dr. João Paulo Cândia Veiga
Political Science Department and International Relations Institute
Departamento de Ciência Política
Instituto de Relações Internacionais (IRI)
Universidade de São Paulo
São Paulo, Brazil
Phone: 55-11-30312269
Email: candia@usp.br
Background: Palm oil is one of the most productive, profitable and versatile tropical crops, with a wide range of uses, including as a cooking oil, ingredient in commercial foods, cosmetics and soap products, and most recently as a biofuel. Although the oil palm tree originated in West Africa, global production of palm oil is now dominated by Indonesia and Malaysia. The rapid expansion of oil palm plantations in those countries has also fueled widespread international criticism. In particular, the oil palm industries in Malaysia and Indonesia are blamed for the widespread clear-cutting of tropical forests and the increase in carbon emissions resulting from burning forests to clear land, the displacement of pre-existing human settlements and small-scale economic activities, the introduction of a monoculture reducing biodiversity, and poor labor conditions on oil palm plantations. These concerns have led to a number of global efforts to promote more sustainable production of palm oil, including the establishment of a Roundtable on Sustainable Palm Oil (RSPO) in 2003 and the establishment of certification mechanisms such as Certified Sustainable Palm Oil (CSPO). Major purchasers of palm oil such as Unilever have also committed to only purchase certified sustainable palm oil, with a phasing-in process to allow smallholder producers and other suppliers to convert to sustainable production.

Palm oil production in Brazil has a long history, but operated on a small scale until recently. However, in 2010 the Lula administration announced a Program for Sustainable Production of Palm Oil, aiming to rapidly expand oil palm cultivation on land that has already been deforested for cattle ranching or sugar cane production. It has been argued that palm oil would provide substantially more employment than cattle ranching, soy farming or other competing uses of the same land. At the same time, by promoting sustainable palm oil production, the Brazilian government hopes that Brazilian palm oil will be more attractive to international buyers such as Unilever on sustainability grounds.

The Agropalma Group is Brazil’s largest palm cultivation and processing company. The company’s website states that “the Agropalma Group is a Brazilian company with the mission of manufacturing and trading, in national and international markets, palm oil and other products in order to enhance the sustainability of business operations through growth and follow the expectations of the all stakeholders.” The Group began the extraction and processing of palm oil in 1982 in the municipality of Tailândia, in the Amazon State of Pará, around 12 miles from the capital of Belém, and eventually became the largest producer of palm oil in Latin America, with control of the product life cycle including refined oil, vegetable fat and margarine. The company directly employs over 4,000 workers, and the company has built and maintains villages for them
("company towns"), providing housing, schooling, sanitation, water, power, health care, recreational centers, and tech centers with internet access. The production units of Acará, Tailândia, Belém and São Paulo are connected through this residential hub.

The primary market for Brazilian palm oil is currently domestic, but palm oil production in Brazil is expected to quadruple over the next decade, with serious potential consequences for environmental sustainability and labor conditions on palm oil plantations and in processing plants. Since the Lula administration’s announcement of its Program for Sustainable Production of Palm Oil, major energy companies such as Vale and Petrobras have announced plans to invest in palm oil based biodiesel.

Agropalma has made commitments to environmental sustainability and respect for labor standards through various certification schemes to which it has adhered in recent years. Through its ‘Dendê’ Family Agriculture Project, it has also encouraged smallholders to become oil palm producers and supported the formation of a growers’ association. To what extent Agropalma is in full compliance with its environmental and labor commitments, and whether these particular schemes fully address the sustainability and labor issues in Brazil’s oil palm sector, are key questions deserving close exploration.

**Objective:**

Agropalma is interested in collaborating with a joint research team from SIPA and the University of São Paulo (USP) to review its compliance with national and international environmental and labor standards, including its compliance with existing certification and labeling instruments for sustainable palm oil, as well as identifying other standards that may be relevant.

**Tasks:**

This project is expected to include the following tasks:

**Desk research:**

- Conduct comparative research on environmental and labor standards issues in palm oil production in Asia—which has been controversial—and try to understand what Brazil and Agropalma potentially add as value to the Brazilian and international market in the form of higher levels of sustainability.
- Understand Agropalma’s sustainability policies, as well as the various certification and labeling schemes to which it subscribes.
- Carry out comparative research on palm oil operations by Agropalma’s direct and indirect competitors in Brazil, including those moving into the industry spurred by growth in demand for palm-oil-based biofuels.

**Field study:**

- Visit Acará and Tailândia municipalities and interview key stakeholders, including NGOs, oil palm producers with exclusive
delivery contracts with Agropalma, labor representatives and public agencies at regional level, to better understand Agropalma’s sustainable business model.

- Visit São Paulo in order to meet with Agropalma officials at their headquarters, and interview national stakeholders from the environmental and labor movements as well as relevant academic experts.

Analysis:

- In preparation for field visits and interviews, develop a checklist of missing points or weaknesses in the certifications and labeling instruments to which Agropalma has adhered, based on an examination of international best practices and critiques that have been made of these voluntary instruments.

- Explore what role state regulation has and could play in complementing or fostering voluntary self-regulation by Agropalma and its competitors.

**Deliverables:**

The deliverables for this project are expected to include:

1) a detailed work plan;

2) draft report outline;

3) draft report;

4) final report;

5) presentation of initial findings to Agropalma staff at the end of the March field trip;

6) presentation of key findings and recommendations at SIPA in April 2012; and at IRI-USP in the second semester of 2012 (by USP team); and

7) presentation of the final report to Agropalma staff and key stakeholders in Belém (by USP team).

**Requirements:**

Ideal candidates for the project team (of approximately four-five SIPA students and two-three USP students) should possess the following skills:

- Familiarity with core labor and/or environmental standards;
- Familiarity with field research and evaluation methods;
- Country/regional experience;
- Fluency in English (for all Brazilians) and Portuguese (for at least two SIPA team members – Spanish would be a plus for those who don’t speak Portuguese);
- Experience working in rural areas (a plus);
- Availability to travel in January or March; and
- High performance in group work.
Logistics: The Columbia student team will conduct desk research and informational interviews in New York City beginning in November 2011. The USP team will make arrangements to organize travels and develop support material for interviews in order to conduct joint field research in Brazil in January and March 2012. The joint team will complete its final report (or reports) by early May 2012.

The project will entail a close working relationship between the Columbia student team, the USP student team and Agropalma. The Columbia and USP students will work together as much as possible as a joint team, with divisions of labor as appropriate. IRI will assist the team in receiving relevant background documents on Agropalma policies and operations, will facilitate the team’s meetings with Agropalma’s staff and other relevant stakeholders, and will provide logistical support to the joint team in São Paulo.

It is expected that most of the students’ fieldwork will involve visits to Agropalma’s operations in Acará and Tailândia, both of which are close to Belém. Agropalma will provide logistical support for the team’s field visits to these facilities.

Annex 2. List of persons interviewed

<table>
<thead>
<tr>
<th>Date and Time</th>
<th>Person, Position, Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FRIDAY- RIO</strong></td>
<td></td>
</tr>
<tr>
<td>3/9, 11am</td>
<td>Mr. Aurelio Vianna Jr. (Senior Program Officer) Ford Foundation</td>
</tr>
<tr>
<td>3/9, 12pm</td>
<td>Glauco Arbix, (President) Rodrigo Fonseca (Assessor da Presidência) FINEP</td>
</tr>
<tr>
<td>3/9, 5pm</td>
<td>Gaspar Giacomini Administration Area de Meio Ambiente Banco Nacional de Desenvolvimento Economico e Social (BNDES) Daniel Amazon Section</td>
</tr>
<tr>
<td><strong>MONDAY, BELEM</strong></td>
<td></td>
</tr>
<tr>
<td>3/12</td>
<td>Shydney Rosa Aka: Sidney Rosa</td>
</tr>
</tbody>
</table>
3/12
Valeria,
(Technical Advisor, Press)
Office of the Secretary of Infrastructure

3/12
Joao Menezes
(Director of Sustainability
Biopalma)
VALE/Biopalma
Yvana Crizanto or Karen Mota
(Communication Manager)
Vale

<table>
<thead>
<tr>
<th>TUESDAY, BELEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/13, 10am</td>
</tr>
<tr>
<td>Joao de Deus</td>
</tr>
<tr>
<td>(Economista)</td>
</tr>
<tr>
<td>Embrapa</td>
</tr>
<tr>
<td>3/13</td>
</tr>
<tr>
<td>Environmental Secretary</td>
</tr>
<tr>
<td>3/13, 5pm</td>
</tr>
<tr>
<td>Hidegardo de Figueredo Nunes</td>
</tr>
<tr>
<td>(Secretary of State)</td>
</tr>
<tr>
<td>Secretary of State of Agriculture</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WEDNESDAY, BELEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Andrea dos Santos Coelho</td>
</tr>
<tr>
<td>(Coordenadora Tecnica da Diretoria de Pesquisas e Estudos Ambientais)</td>
</tr>
<tr>
<td>Instituto de Desenvolvimento Economico, Social E Ambiental Do Para- IDESP</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>THURSDAY, BELEM</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/15, 8:30 am</td>
</tr>
<tr>
<td>Professor Luis Franca</td>
</tr>
<tr>
<td>(Professor of Chemical Engineering)</td>
</tr>
<tr>
<td>UFPA</td>
</tr>
<tr>
<td>3/15, 5pm</td>
</tr>
<tr>
<td>FETAGRI-Thailandia</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FRIDAY, MOJU</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/16</td>
</tr>
<tr>
<td>President</td>
</tr>
<tr>
<td>FETAGRI- Moju</td>
</tr>
<tr>
<td>3/16</td>
</tr>
<tr>
<td>Liborio</td>
</tr>
<tr>
<td>Ministry of Agriculture of Moju</td>
</tr>
<tr>
<td><strong>FRIDAY, BELEM</strong></td>
</tr>
<tr>
<td>------------------</td>
</tr>
<tr>
<td>3/14 TBD</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>3/14</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>MONDAY, BELEM</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3/19, 9:30 am</td>
<td>Dr. Maria Da Graca Azevedo da Silva (Procuradora de Justica)</td>
</tr>
<tr>
<td></td>
<td>Estado do Para Ministerio Publico Procuradoria-Geral de Justica</td>
</tr>
<tr>
<td>3/19 11am</td>
<td>Tarcisio Feitosa (Supervisao Administrativa)</td>
</tr>
<tr>
<td></td>
<td>Ministerio Publico do Estado do Para</td>
</tr>
<tr>
<td></td>
<td>Cassio Alvez Pereira (Agronomo/ Pesquisador II)</td>
</tr>
<tr>
<td></td>
<td>Instituto de Pesquisa Ambiental da Amazonia - IPAM</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>TUESDAY, AGROPALMA</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3/20</td>
<td>Tulio Dias</td>
</tr>
<tr>
<td></td>
<td>Manger of Social and Environmental Responsibility</td>
</tr>
<tr>
<td></td>
<td>Agropalma</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>WEDNESDAY AGROPALMA</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3/21</td>
<td>Tulio Dias</td>
</tr>
<tr>
<td></td>
<td>Manger of Social and Environmental Responsibility</td>
</tr>
<tr>
<td></td>
<td>Agropalma</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>THURSDAY AGROPALMA</strong></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>3/22 7:30 am</td>
<td>Meeting with 2 reserve guards</td>
</tr>
<tr>
<td>3/22</td>
<td>Tulio Dias</td>
</tr>
<tr>
<td></td>
<td>Manger of Social and</td>
</tr>
</tbody>
</table>
Annex 3. Key Brazilian Laws

Environmental Laws

New Brazilian Forest Code
(Law No. 4771 of 15.09.1965) - Determines the protection of native forests and defines permanent preservation areas (APPs in Portuguese). According to the law, deforestation is forbidden. For the “Legal Amazon Area” in Brazil, the law rules obligatory preservation reserves in each property with the equivalent of 80% of native forest.

Permanent Preservation Areas Law
(Law No. 6.902 of 27.04.1981) - Law that created the "Ecological Stations" and the "Environmental Protection Areas" or APPs (in Portuguese), where they can remain private property, but the government restricts economic activities for environmental protection. Conservation of vegetation is required for a range of 30 to 500 meters on the banks of rivers (depending on the width of the watercourse), lakes and reservoirs, in addition to the hilltops, slopes steeper than 45 ° and local above 1800 meters altitude.

Environmental Crimes Law
(Law No. 9605 of 02.12.1998) - The law criminalizes acts of graffiti urban buildings, making or releasing balloons (at risk of causing fires), damage to ornamental plants, hinder access to beaches or perform deforestation without prior authorization. Fines range from $ 50 to $ 50 million.

Wildlife Law
(Law No. 5197 of 03.01.1967) - Wildlife is a public good (even though the animals are on private property). The law classifies as a crime: stalking, harvesting of wild animals, hunting professional, trade in specimens of wild fauna and products of their hunting, and prohibit the introduction of exotic (imported) and amateur hunting without permission of IBAMA. It also criminalizes the export of hides and skins of amphibians and reptiles (like alligators).

Agricultural Policy Law
(Law No. 8171 of 01.17.1991) - Sets the protection of the environment among its objectives. States that the government (federation, states, municipalities) must discipline and supervise the rational use of soil, water, fauna and flora; make agroecological zoning to order the occupation of various productive activities (including installation of hydroelectric power plants), to develop environmental education programs, promote the production of native species, among others.

National Environmental Policy Law
(Law No. 6.938 of 17.01.1981) - Defines that the polluter is obliged to compensate environmental damage they cause, regardless of fault. The Public Prosecutor (District Attorney or Attorney...
General) may commence actions against liability for damage to the environment, requiring the polluter an obligation to recover and / or indemnify the damages caused.

Pesticides Law
(Law No. 7802 of 07.11.1989) - The Pesticide Law regulates from the research and manufacture of pesticides to their marketing, application, control, supervision and also the destination of the package. Imposes the obligation of an agronomist for the sale of pesticides to the consumer. It also requires registration of products in the Ministries of Agriculture and Health and the Brazilian Institute of Environment and Renewable Natural Resources, IBAMA. Any entity may request the cancellation of registration, forwarding evidence that a product causes serious harm to human health, environment and animals. The violation of the law can result in fines or imprisonment, even for entrepreneurs.

Law on Public Forest Management
(Law No. 11284/2006, year 2006))Has standardized the system of forest management in public areas and created a regulatory agency (Forest Service). This law also established the Forest Development Fund.

Biosafety Law
(Law No. 11,105, year 2005) Set up surveillance systems on various activities involving genetically modified organisms

Labor Laws
General labour rights are fully determined by the Brazilian Federal Constitution 1988 (Articles 6 to 9, “Social Rights”)

Employment Record Card and Social Security is mandatory for the exercise of any employment, including those of rural nature.

Rural Labor Law
(Law No. 5889 of 08/06/1973) Acts:
• From 16 to 18 years old: Prohibited night work, unhealthy, or arduous work. (dust, heat, gasoline, chemicals, pesticides, noise, sale of alcoholic beverages, among others).
• Women and Children: may only exercise muscle strength up to 20 kg in continuous work.
• Forced Work: Is strictly punished. No violence, bullying or coercion: Article 197 Penal Code. Moreover, there may be expropriation of rural land where slave labor is found. It is prohibited to keep the employee working during the holidays
• Extra - Time: With more than 50% minimum wage depending on the employee’s written permission for extension by agreement or collective agreement except in cases of imminent serious harm and unforeseen.
• Maternity Leave: 120 days, Paternity Leave: 05 days.
• Insurance against accidents at work.
• Prohibition of discrimination in respect to salary of a disabled person.
• Rural Retirement by age: 60 for men and 55 for women.
• Provision of School: when more than 50 families on the property.
• Night Work: additional 25% more at least.
• Rural workplaces will be subject to the safety and hygiene standards laid down by decree of the Minister of Labour and Social Security.
• Personal Protective Equipment - EPI: Must be free, sanitized and individual
• Rest: In any continuous work lasting more than six hours, will be required to grant a break for rest or food observing the habits and customs of the region, not counting this interval in hours of work. Within two working days will be a minimum period of eleven consecutive hours for rest.
• Violations to the provisions of this Act shall be punishable with fine of R$ 380.00 (approximately 200 US dollars) per employee illegally.