Improving the Livelihoods of Palm Oil Smallholders: the Role of the Private Sector

Prepared by FSG Social Impact Advisors
(commissioned by the World Bank Group)

THE WORLD BANK

IFC International Finance Corporation
World Bank Group

Table of Contents

Executive Summary

Purpose of This Report

This report provides an assessment of the private sector's efforts to improve the livelihoods of smallholder farmers engaged in oil palm production. Palm oil is the world's most traded vegetable oil and the industry employs millions around the developing world. At the same time, palm oil production has also resulted in significant controversy due to its potential effects on the environment, as well as various social challenges. The challenges faced by smallholder farmers – those controlling 50 hectares or less of cultivated land – are especially acute.

Addressing these challenges requires participation from the entire sector, including donors, civil society, governments, and corporations. We believe that corporations in the palm oil supply chain can play a crucial role in improving smallholder livelihoods, given the resources and expertise they bring. These efforts can both impact smallholder livelihoods and also benefit companies through greater yields and improved quality – a significant opportunity to create shared value for the private sector.

This report was created to inform development of the World Bank Group's (WBG) strategic framework for palm oil. Given the emphasis of the WBG framework on addressing smallholder needs, the findings of this report can serve as important guidelines for implementing future activities. Our research consisted of 28 interviews with a range of stakeholders, including representatives from companies, civil society organizations, industry associations, and multilateral agencies, as well as secondary research.

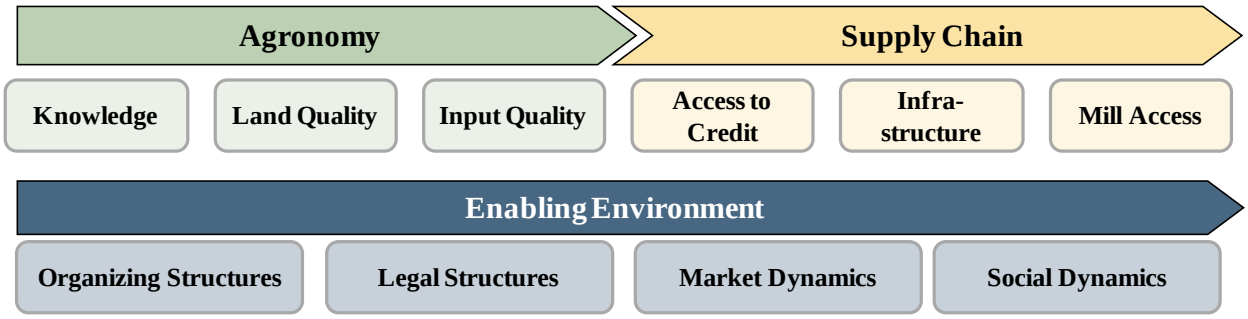
Factors Affecting Smallholder Livelihoods

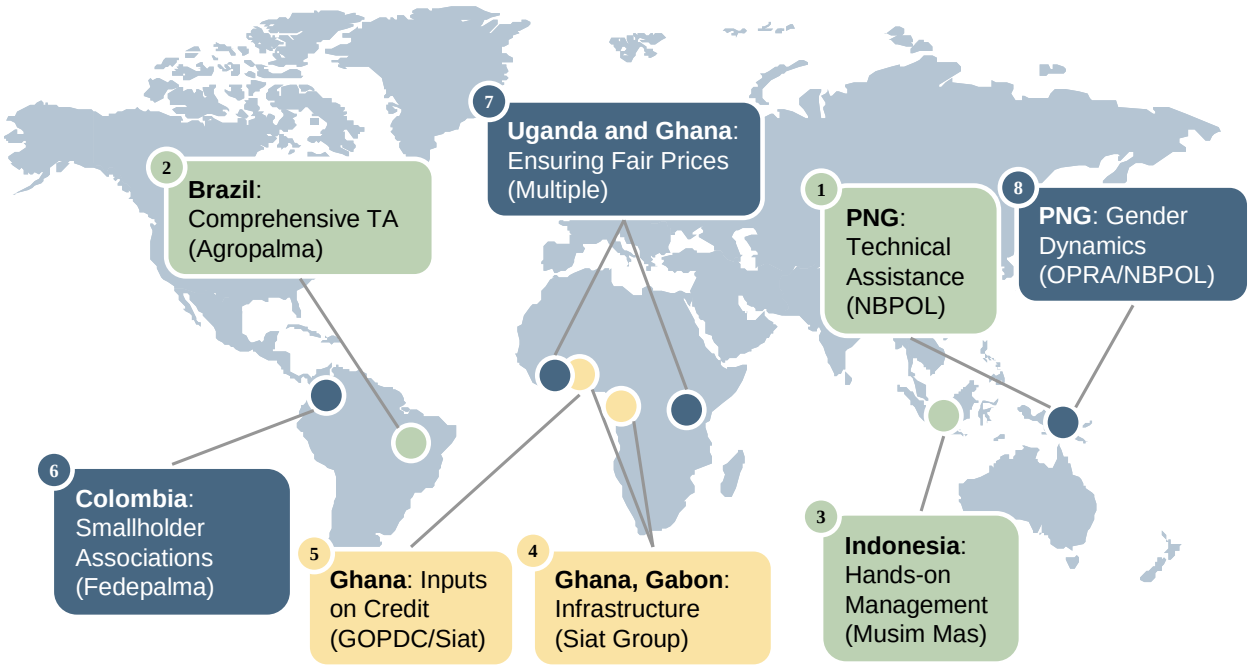
While smallholder conditions and structures vary significantly across and even within regions, three major categories of factors affect smallholder livelihoods: agronomy, supply chain, and the enabling environment. Within each of these factors, there are significant needs to improve smallholder livelihoods.

Profiles of Private Sector Efforts

Palm oil producing companies have substantial business interest in improving smallholder productivity and livelihoods, and our research identified several examples of private sector-led efforts. In many cases, companies focus on providing support on agronomy issues via technical assistance. For example, New Britain Palm Oil supports the provision of extension services to smallholders in Papua New Guinea in order to improve productivity. Other companies, such as Siat Group are involved in strengthening supply chain conditions by improving the mechanisms for smallholders to access credit from oil palm mills. A few companies are attempting to address elements of the enabling environment for smallholder livelihoods: in Uganda, Bidco partnered with IFAD and the Ugandan government to develop a pricing policy that ensures a transparent and fair pricing mechanism for smallholders.

This paper profiles several smallholder development efforts, as depicted in the figure below.





Trends in Private Sector Efforts

Beyond the specific case examples of existing projects, our research identified several themes regarding the role of the private sector in promoting smallholder development:

- *More Is Needed: Despite important efforts by some companies, there is a need for significantly more engagement by the private sector in order to address smallholder livelihood challenges.* There is a continued substantial gap between the yields of smallholder farms and that of plantations, highlighting the need for a sustained focus on the development of smallholder farmers.
- *Leadership Vacuum: Stakeholders could not identify specific companies that are leaders in improving smallholder livelihoods in palm oil.* In some other corporate sectors, such as the pharmaceutical industry, multiple leading companies model best practice approaches to corporate social responsibility efforts. The palm oil sector does not have widely accepted leaders in CSR related to smallholders.
- *Systems Matter: Few companies are working on enabling environment issues that can have large scale impact beyond their own smallholders.* Several companies work on enabling environment factors in a more limited way, for example, by strengthening associations among their smallholders, or by addressing social issues in affected communities. However, few are working on broad enabling environment conditions, such as developing national institutional capacity related to extension and research. This theme stands in contrast to some other crops such as cocoa and rubber, where several initiatives are under way that take systemic approaches to development.
- *Power of Partnering: Collaboration across sectors is a critical component of many existing efforts.* While companies can play an important role in directly improving livelihoods of their associated smallholders, there is significant potential for more systemic challenges to be addressed through multi-sectoral collaboration.

Recommendations for Private Sector Engagement

Significant opportunities exist for corporations to commit to smallholder livelihood development in ways that link efforts more closely with their business expertise and priorities. As companies engage in future investments in improving smallholder livelihoods, they should consider the following recommendations:

1. *Identify opportunities for shared value creation* that enhance the competitiveness of a company while simultaneously advancing the economic and social conditions in the communities in which it operates.
2. *Prioritize issues that leverage the company's core capabilities* (e.g., providing technical assistance in improving yields is a core competency for agricultural companies, while investing in road construction does not use companies' core strengths).
3. *Partner with other actors to achieve collective impact*, working with governments, NGOs, donors, or other companies to develop shared strategies rather than only pursuing individual projects.
4. *Take advantage of the existing momentum* in the field on certain issues (e.g., certification) so as to increase chances of success.
5. *Consider the scale of impact* of the intervention, and focus on opportunities with large-scale benefits that can serve as models for replication.
6. *Measure the results* of smallholder development efforts in order to learn effectively to inform future projects.

Strategic Opportunities for the Private Sector

Stakeholders suggest several areas for corporations to improve smallholder livelihoods. These include:

- *Creating new incentive structures* that reward farmers for utilizing agronomy best practices (e.g., paying farmers based on appropriate fertilizer use).
- *Working with financial institutions to develop appropriately-designed financial products* for farmers (e.g., access to loans with deferred repayment which do not require land titles as collateral).
- *Incorporating productivity improvements* into steps taken toward certifying smallholders (e.g., incorporating stronger technical assistance into the monitoring required by RSPO standards).

Donors and development agencies, such as IFC, can provide incentives for the private sector to invest in innovative models and fund research efforts that encourage additional investments.

We hope that the opportunities presented here will catalyze the field to take action on the challenges faced by smallholders, leading to improved smallholder livelihoods in the oil palm sector.

1. Introduction

Context

Palm oil is the world's most traded vegetable oil. It is produced more efficiently in terms of land use than any other oil crop and has seen global production double in each of the last three decades. Production is fairly vertically integrated. The palm oil sector provides income and employment for a significant number of individuals in developing countries. Indonesia and Malaysia produce the bulk of the world's palm oil, with Colombia, Thailand, Nigeria, and Cote d'Ivoire also producing significant amounts.

At the same time, the production of palm oil has also resulted in significant controversy due to its effects on the environment as well as social structures. The challenges faced by smallholder farmers in this industry can be especially acute, given limited land, lack of access to technology and appropriate inputs, and some examples of questionable corporate practices in acquiring land.

Several efforts are underway to improve the sustainability of oil palm cultivation. The Roundtable on Sustainable Palm Oil (RSPO) was formed as a multi-stakeholder collaboration to establish principles and criteria for certifying palm oil as sustainable. The production of certified sustainable palm oil continues to increase and the process of adapting the standards to country-specific interpretations and to different types of smallholders is ongoing, albeit slowly.

However, certification has not been a panacea for the industry. In 2009, the World Bank Group (WBG), including IFC, halted all of its investments in the sector, in recognition of some continued environmental and social challenges with prior investments. The WBG is presently undertaking a process of research and consultation leading to the development of a new strategic framework. This paper provides a complementary perspective on a key strategic issue in the oil palm sector.

Purpose and Methodology

This report explores efforts by private sector companies in the industry to improve the livelihoods of smallholder farmers engaged in oil palm production. The goal of our research was to identify examples of private sector interventions to improve the lives of smallholders, share these examples with the field, and identify opportunities for further engagement across the sector (by companies as well as the IFC and other donors) in smallholder development.

The research for this paper consisted of 28 interviews with a range of stakeholders, including companies across the palm supply chain, civil society representatives, industry associations, and multilateral agencies. Additionally, we reviewed key documents in the secondary literature pertaining to oil palm smallholders.

Given the breadth and complexity of addressing the palm oil industry as a whole, this report focuses primarily on the private sector-smallholder intersection in order to provide examples and implications that are practical and feasible. We acknowledge that this represents only one portion of the sector, as the challenges faced by plantation workers and mid-sized producers are also critical to address; the private sector is also only one of several essential pieces of smallholder development, as donors and civil society play roles as well.

A significant amount of research already exists documenting the challenges faced by the sector as well as the nuanced range of smallholder types. We have thus provided a brief overview of smallholder characteristics in this report, but have concentrated the majority of our research on documenting good practice interventions attempting to address some of those challenges. It is important to note, therefore, that the report does not represent an exhaustive review of smallholder challenges or of the nuances by region. Additionally, the paper does not fully address the environmental practices associated with oil palm smallholder cultivation, focusing primarily on the economic and social conditions of smallholder farmers.

Palm oil producing companies have substantial business interest in improving smallholder productivity and livelihoods, and our research identified several examples of private sector-led efforts. In many cases, companies focus on providing support on agronomy issues via technical assistance. However, despite these important efforts by some companies, there is a need for significantly more engagement by the private sector in order to address

smallholder livelihood challenges. Stakeholders are unable to point to specific companies that are taking leadership in improving smallholder livelihoods. Also, few companies are working on enabling environment issues that can have large scale impact beyond their own smallholders.

There are significant opportunities for corporations to improve their commitment to smallholder livelihood development, especially by linking development efforts more closely to their business expertise and priorities, and by working in collaboration with others. We have posed in this paper several strategic opportunities for improved engagement by companies, as well as the recommendations that companies might use to select where they are best suited to play a smallholder development role.

2. Characterizing the Palm Oil Smallholder

Smallholder Overview

Oil palm is a tree crop grown in tropical regions. Key features of its cultivation include a long lead time between planting and productive harvest (at least 2-4 years), followed by a long productive period (up to 25 years). Another consideration is the importance of processing the fresh fruit bunches at a mill within 24 hours after harvesting. Oil palm is grown by a mix of large plantation companies (either privately or government-owned) who own estates, and smallholder farmers.

Most sources (including the Roundtable on Sustainable Palm Oil) define oil palm smallholders as farmers controlling 50 hectares or less of cultivated land. This paper adopts that definition and focuses on smallholders while acknowledging that there is significant variation in the livelihoods of farmers within this range of landholdings, and that most smallholders control much less than 50 hectares. While there also may be significant development opportunities associated with mid-sized cultivators as well as workers on plantations who do not own land, these groups are outside the scope of this paper.

Smallholders represent a significant portion of oil palm cultivation worldwide. Globally, three million smallholder heads of family are involved in the oil palm sector (Teoh 2010). While data collection on cultivated area is not consistently available everywhere, there is significant variation in key regions (see Figure 1).

Figure 1: Smallholder Production in Major Producer Countries[1]

Country	Percentage of Area under Smallholders	Percentage of Production under Smallholders
Indonesia	44%	33%
Malaysia	41%	–
Nigeria	–	80%
PNG	42%	35%
Thailand	76%	–

Structure of Smallholder Relationships

The structure of the relationship between smallholders and the plantation companies and/or mills that buy their fruits is a major determinant of smallholder conditions. There are several main types of structures, though there is significant variability even within these types.

Independent smallholders are free to sell to any mill and thus may be able to pursue higher prices. However, their market access is not assured, and in any case there may be not be enough of a diverse buyer base if mills are scattered. Independent smallholders are often less productive; studies have identified elements of inefficiency that include maintaining old oil palms too long, using smallholders' own (low-quality) seedlings, applying insufficient amounts of fertilizer, harvesting unripe fresh fruits bunches (FFBs), and not having strong data management systems (Ayat Rahman et al 2008).

Simon Siburat of Wilmar noted the differences in how independent smallholders access agricultural inputs and other support: *"With independent smallholders, they're nobody's child; they've basically on their own. Companies cannot be sure that if we sell inputs on credit, he'll sell his crop back to us and actually repay."*

In contrast, supported smallholders are generally tied to specific mills. The exact mechanism for this tie varies: it can include formal links in land titles or contractual relationships associated with loans. Generally, supported smallholders have access to some degree of support from plantation companies – through access to credit, technical assistance, or other means. However, their productivity is typically lower than that of plantation estates. The specifics of these structures vary significantly across and even within countries;

[1] *Smallholder production data from Teoh 2010 and Vermeulen and Goad 2006. Comprehensive data on smallholder cultivation (by area and by total production) is not consistently available across countries; this table highlights the available data points in key producer countries*

these variations have been described extensively in other studies[2].

While there are benefits to this relationship, there are potential pitfalls at multiple steps. Marcus Colchester of the Forest Peoples Programme described the following series of concerns:

> *"First, there's the problem of land acquisition and customary rights. Second, do you get a smallholding if you were promised one? Third, where do they get the smallholding – sites can be poor quality and very distant. Then, when do they get the smallholding? Even after they've repaid that debt, do they actually get the title to the land"*

Finally, there are other arrangements such as collective landowner schemes that involve leasing communal land to plantation companies in return for a dividend (Vermeulen and Goad 2006).

Geographic Differences

There are significant differences across regions in many of the smallholder factors. A few examples of the country-specific dynamics in key producer areas include:

- Indonesia has seen particular challenges with smallholder land titling (Teoh 2010), as well as with troubling environmental practices such as burning for land clearing.
- Malaysia faces similar challenges to Indonesia in some respects (some degree of land title issues, concern about environmental impacts); however, interviews suggested that Malaysian smallholders see greater productivity due to better support from more active government institutions like FELDA.
- In both Indonesia and Malaysia, recent increases in the number of available mills has led to a growth in the independent smallholder sector (Vermeulen and Goad 2006).
- Thailand's palm oil sector is dominated by smallholders rather than large plantation companies; low oil extraction rates in Thailand's mills is a productivity concern.
- Papua New Guinea faces significant challenges with local infrastructure, including limited access to transportation and electricity. Traditional economic systems also may prevent smallholders from investing sufficiently in land upkeep.
- In many sub-Saharan African countries, soil quality and rainfall conditions are major factors in productivity. Limited infrastructure is a significant barrier here as well.
- Latin America is perceived as being a less challenging setting than in places like Indonesia (IFC 2009); however, countries such as Colombia have some particular challenges around community relationships and political risks associated with a long-term crop. There are also challenges with endemic diseases such as lethal bud rot.

Smallholder Productivity and Income

Smallholder productivity is on average significantly lower than plantations. As Figure 2 depicts, in 2008 smallholders in Indonesia averaged a yield 35% lower than private plantations, and 40% below government plantation production (cited in Teoh 2010). Production is also highly variable across smallholders within an area. Research in Indonesia looking at productivity of supported smallholders across a plantation's plasma holdings found up to 50% variability around the mean production level (Zen et. al. 2005).

Oil palm smallholder income is highly variable over the life cycle of the crop. Smallholders generally must take out sizeable loans at high interest rates to finance initial planting, and the payment of these loans is very back-weighted. During the first 5-7 years after planting, smallholders do not receive income from their crop, though they may work as plantation laborers during this period. Then, in the crop's productive years, smallholders will earn enough to begin paying back the loan

---

[2] *As an illustration, many studies (Teoh 2010; Vermeulen and Goad 2006) have concluded that Indonesia's nucleus-estate schemes (NES) have not been very effective at promoting smallholder development, and in particular that land tenure concerns are a continued problem. More recent related programs such as KKPA have attempted to improve smallholder autonomy through a microfinance approach, but challenges include delays in receiving loans and poor infrastructure, and the overall results have been functionally similar to NES (Colchester and Jiwan, 2006). Programs in Malaysia such as FELDA's resettlement programs and the more recent Konsep Baru leasing arrangements have faced significant social challenges due to unclear land rights and other concerns (Vermeulen and Goad 2006).*

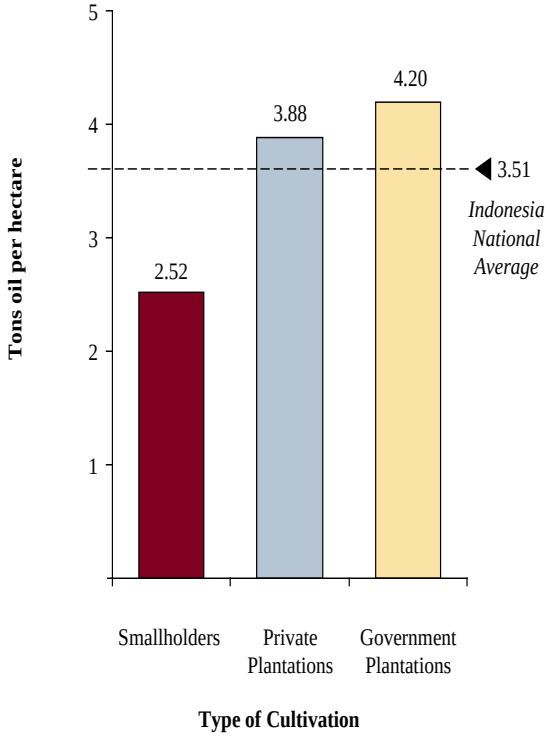
(Chaichee 2007). While oil palm is generally seen as being a profitable crop for smallholders, some studies have found that income from subsistence-type activities is comparatively higher (Vermeulen and Goad 2006).

Smallholder Role in Certification

Another important characteristic of smallholders in the context of the overall palm oil industry is the role of smallholders in certification. Several companies have become RSPO certified in recent years: either achieving certification on a specific (segregated) portion of their supply, or by producing a given amount of sustainable palm oil and receiving corresponding certificates ("book and claim"). Achieving full certification that includes all smallholders, however, poses significant challenges for companies in terms of ongoing compliance – especially with independent smallholders. These challenges include the cost of monitoring compliance and the difficulty of ensuring traceability in a shifting supply base. Companies have also reported difficulties convincing smallholders of the benefits of certification, especially in the absence of clear estimates of any potential price premium. Simon Siburat of Wilmar summarizes the communication challenges:

> *"Certification is a new thing for them, so there's a variable reception. Some are very conducive and see the benefit. Others don't. They'll see these costs eating into their profits, and ask, at the end of the day, what will this do for me? We're hoping they'll get a premium out of this, but we can't answer how much – because the market can't assure us."*

Figure 2: Palm Oil Productivity in Indonesia

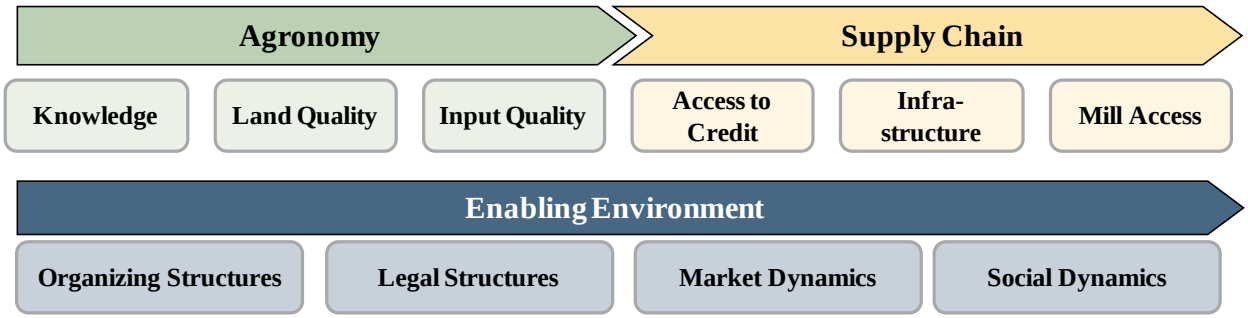


3. Smallholder Development Challenges and Successes

Major Factors Affecting Smallholders

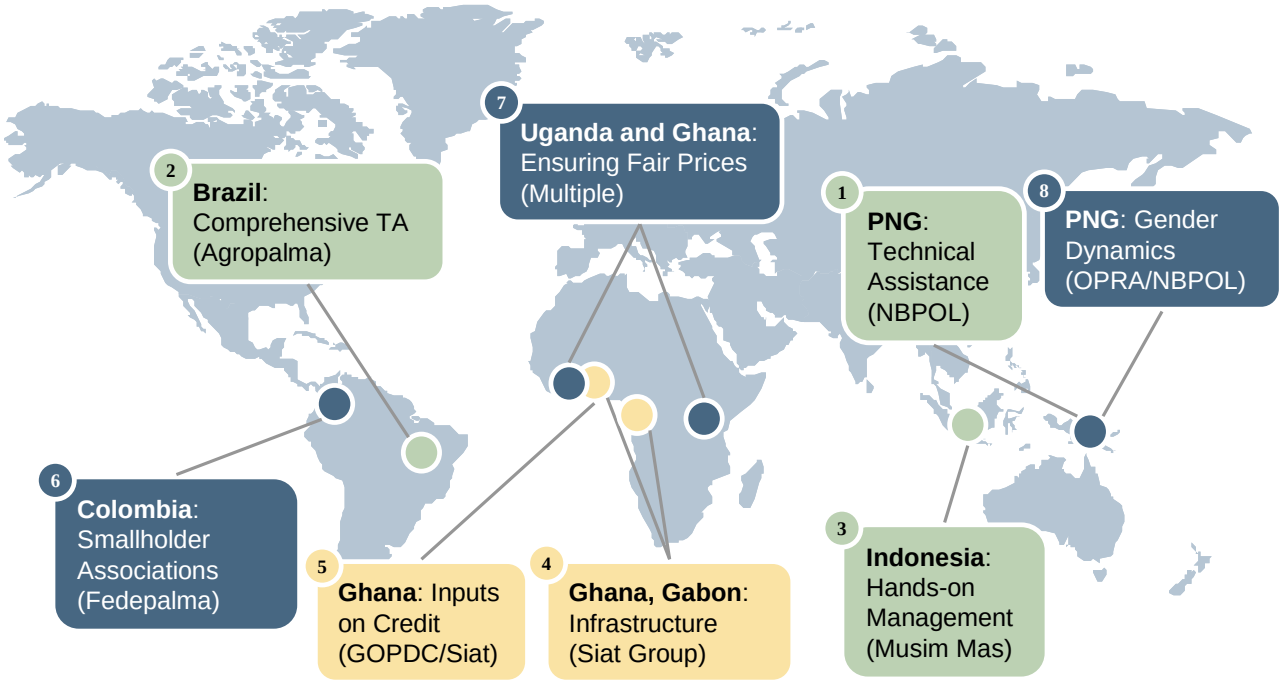
The factors that drive smallholder productivity, income, and livelihoods fall into three main categories: Agronomy, Supply Chain, and Enabling Environment. Within each of these areas, there are specific factors that represent both challenges and opportunities for smallholder development. Figure 3 depicts these categories of smallholder challenges and the specific factors that constitute each.

Figure 3: Factors Affecting Smallholder Development



Within each of these factors, there are existing examples of private sector involvement in smallholder development. These examples include the efforts depicted in Figure 4. The sections that follow share additional detail on each of the factors affecting smallholder development, as well as case examples of these existing programs.

Figure 4: Summary of Examples of Private Sector Interventions



Agronomy

Several types of agronomic factors are essential to smallholder development, in terms of the need to increase productivity as well as the importance of environmental sustainability. These include technical knowledge as well as quality of land and inputs.

Knowledge

- Sufficient technical knowledge regarding oil palm as a crop and best management practices for its cultivation.
- Access to ongoing extension, in order to receive agronomic information and training on best practices.
- Ability to follow sustainable production guidelines, in terms of avoiding environmental damage (e.g., incorporating suitable buffer zones), as well as in terms of compliance with certification schemes.

Billy Ghansah, an expert on oil palm in sub-Saharan Africa, notes, *"In terms of productivity, it comes down to the level of knowledge: if you don't have the knowledge, you'll select poor soil, misuse fertilizer, misuse pesticides, use slash and burn, and your productivity is going to drop."*

Land Use

- Soil quality, in terms of site selection as well as practices that promote ongoing soil management.
- Size of plots that are large enough to provide economies of scale and economically sustainable livelihoods.
- Diversification of crops in order to diversify income and promote environmentally sound practices (e.g., through undercropping and to allow integrated pest management).

Garry Smith of FAO emphasizes the role of soil quality, particularly in Africa: *"One of the biggest constraints to development in Africa is soil management. We're dealing with heavily depleted soils, so you need to use farming systems that enhance soil organic matter content and structure: undercropping of legumes, use of green manures, and so on."*

Input Quality

- Quality seed stock available , ideally grown by a nursery or seed bank.
- Appropriate level of fertilizer used, avoiding under- and over-application.
- Efficiency of farm labor, whether hired or family-based.
- Safe use of pesticides, with training on appropriate use and adequate safety precautions.

Gert Vandermissen of Siat explains the importance of initial seed stock: *"We know that we need to provide our farmers with the best seed available. If you use cheap material, you lose for 25 years."*

While smallholders face challenges associated with each of these agronomic factors, there are significant opportunities to promote smallholder development through improvements in these areas. Several companies, including New Britain Palm Oil Limited and Agropalma Group, have projects underway that intend to improve these conditions.

1 Agronomy Example: Supporting Availability of Extension and Technical Assistance

New Britain Palm Oil Limited (Papua New Guinea)

Access to quality technical assistance and extension services is a critical factor for successful smallholder production. Extension allows for better agricultural practices to be disseminated to smallholders who may not have technical agronomic knowledge and/or specific experience with oil palm. Technical assistance in areas like fertilizer application ensures good practice on an ongoing basis. Crucially, certification requires the same types of site visits and touchpoints with farmers that are associated with extension – successful extension, therefore, sets the ground for a certified crop.

Challenges

New Britain Palm Oil Limited faced several factors that made improving the quality of extension in PNG a business imperative. As NBPOL is by far PNG's largest oil palm company, processing 82% of the country's

total production, it has a significant interest in strengthening the sector in the country overall. The company is mutually dependent with local smallholder outgrowers: NBPOL sources 30% of its FFBs from smallholder outgrowers, and in each area of operations the company is the only available mill. NBPOL is also a leading player in the RSPO and has set ambitious targets regarding achieving full certification: Simon Lord, NBPOL's Director of Sustainability, recalls: *"While going through this, we realized that if we were going to achieve certification, we needed to bring our smallholders with us. They're 30% of our industry, we couldn't leave them behind."*

Against this backdrop of a commitment to development, NBPOL faced several challenges.

- Scale**:** NBPOL's outgrowers are numerous and geographically scattered; they sourced from 7,500 smallholders. Additionally, the company had recently acquired several plantations from Cargill, which meant another 8,000 smallholders were being added to their supply base. As Lord puts it, *"I keep thinking, how on earth do we get around to this many smallholders? The sheer logistics of it!*"
- Productivity**:** A related challenge was productivity: while NBPOL's estates produced around 26 tons per hectare, and their existing smallholders were producing 19 tons per hectare, the newly incoming ones yielded five tons per hectare. Smallholders were in dire need of technical support.
- Government**:** A final challenge was related to government limitations. PNG's government plays a very limited role in areas of oil palm cultivation, with limited support for infrastructure – especially lacking are support for public health and education services, and for transportation infrastructure. While there is a public-sector smallholder extension service called the Oil Palm Industry Corporation (OPIC), it is woefully underfunded and low-functioning. Although initially funded by the PNG Government, today OPIC relies entirely on levies paid by smallholders and a voluntary matching payment by the private sector milling companies. This lack of resources has combined with governance and management weaknesses to limit OPIC's capacity to provide effective extension services to smallholders. Ian Orrell of the Oil Palm Research Association of PNG (PNGOPRA) explains, *"OPIC does not have adequate capacity or competencies to bring smallholders to the RSPO standards within the required timeframe. This creates pressure on the private sector to provide supplementary extension services to smallholders and provide capacity building to the public sector in order achieve these goals."*

Activities

NBPOL set out to complete a connected set of activities around improving the capacity to provide smallholders with extension. First, they planned a survey of smallholders that would create GPS maps of each smallholding that could be layered with localized data on productivity and sustainability factors. Lord explained the goal: *"We've developed precision approaches to map agronomic data to geographic location. I can color code fields based on yield, or by fertilizer application timeliness, or evidence of erosion. That lets me look at the whole picture: where are my trouble spots, where do we target?".*

The company had created its own questionnaire based on the criteria of the RSPO, but actually conducting the survey would require significant labor. This created an opportunity for NBPOL to play a more hands-on role building OPIC's capacity. They began by training the 53 local OPIC extension officers to conduct the survey. The company identified and addressed a few problems among its smallholders, such as pesticide use. The survey is now in its second round, and the most recent results found that over 99% of their roughly 7,500 smallholders in their West New Britain holdings met or exceed RSPO requirements.

But there were other opportunities to build the public sector's extension capacity. In partnership with the Dutch NGO Solidaridad, as well as the World Bank's Smallholder Agriculture Development Project, NBPOL supported the Palm Oil Producer Support Initiative (POPSI). This public-private partnership is training extension officers around the RSPO principles and criteria, as well as ways of communicating sustainability to smallholders and monitoring compliance. While the project is still evolving, so far it has produced several tools for OPIC officer use, including a revised form for planting approval.

Impact

While many of these projects are still underway, NBPOL's activities appear to be achieving significant impact on smallholder livelihoods and on public sector extension capacity. The company achieved RSPO certification in 2008, and even with the 8,000 newly-added smallholders, they aim to have all smallholder production certified by 2011-12. Additionally, the company founded a consulting firm (Global Sustainability Associates) to disseminate the lessons of their efforts to others in the oil palm supply chain. On its website, NBPOL expresses optimism for future progress and replication: *"There are many areas for further improvement and a further 50% increase in smallholder yields and incomes is not beyond reach. The combined efforts of OPIC and the company have made the smallholder scheme in West New Britain a model which many other rural industries want to use as a template for success."*

2 **Agronomy Example: Moving from Technical Assistance to Comprehensive Support**
Agropalma (Brazil)

Challenges

Smallholder farmers often lack specific technical knowledge for increasing productivity of their crops. But even with the knowledge, they may not possess the long-term planning skills necessary to ensure the proper utilization of that knowledge. Often lacking formal education or financial skills, smallholder farmers also struggle to manage the additional income generated from their farming. *"Without formal education and money management skills, smallholder farmers often are not equipped to deal with the additional cash and determine how to best invest for the long term,"* comments Tulio Dias, Corporate Social and Environmental Responsibility (CSER) Manager for Agropalma. *"As a result, we often see farmers spending the additional cash on consumption rather than saving for health or education of family members. Increased income is not necessarily always used in the optimal way to lead to a better livelihood."*

Agropalma Group has invested in palm oil and palm kernel oil production since 1982 in Brazil. The company maintains 39,000 hectares of plantation and accounts for about 70% of Brazil's total palm oil production. While Agropalma utilizes a combination of both its own plantations and smallholder farmers for its production, the latter account for a small portion of the company's processed palm bunches. *"We are somewhat unique in that we only work with a small number of smallholders,"* comments Dias. The company currently works with 185 families of smallholder farmers, with an average holding of six to ten hectares for each farmer, which is also higher than the average smallholder holding.

Activities

"Our goal with the smallholder farmers we work with is to not only provide them with a means for subsistence farming, but to provide them with a middle class income*,"* explains Dias. In addition to technical assistance on agronomy issues, the company provides its smallholder farmers "motivational assistance" to help with agricultural practices. *"There are six steps to oil palm production, and most of our smallholder farmers know the agronomy best practices,"* explains Dias. *"What they often lack is a long-term vision and planning abilities, and that's what we help them with."* Agropalma employs a full-time agronomy engineer, two technicians, and supporting staff who are exclusively focused on working with smallholders. Every week, a member of the Agropalma staff visits each of its smallholder farmers to provide motivational and technical assistance (TA). To complement the TA, the company also provides fertilizer to its smallholder farmers at cost, which is about half the local market price, the same rate that it receives from wholesalers for its own plantations.

Impact

Agropalma has also supported specific research projects to understand smallholder livelihood challenges. The company is working with a Brazilian nonprofit to conduct a study on defining sustainable livelihoods through developing a set of indicators. Once preliminary results are available, Agropalma will work with the nonprofit and smallholders to determine what role the Smallholders Association, the smallholders as individuals and the company might play in contributing to better livelihoods for the farmers. The company is also supporting research by Sao Paolo University to identify the most important social and economic factors for palm oil productivity, by studying two sets of the most and least productive smallholders. While the

number of smallholders the company is working with is relatively small, results from Agropalma's studies could have a broader impact for others working with smallholders.

3 **Agronomy Example: Taking a Hands-on Role in Management**
Musim Mas (Indonesia)

Challenges

While most companies engage in agronomic improvements by providing technical assistance and inputs to their smallholders, some see limitations in the results of these efforts. Simon Siburat of Wilmar commented, *"Often, we find ourselves trying to instruct farmers on how to manage their own smallholdings. We recommend that they apply a certain amount of fertilizer, but they worry about the cost, and under apply. It leads to a lower yield."*

Activities

Musim Mas takes a different approach: they manage smallholder plots in a more hands-on way. In their two smallholder projects, the smallholders maintain ownership of their plots of land, but agree that the company will manage the cultivation centrally. The smallholders initially work as plantation workers during the planting period, and then ultimately harvest their own land once fruit production begins. They take this approach because it enables the company to follow consistent practices across both its core plantation and the smallholdings. Tian Sang Tan of the company described, *"Once the agreement is reached, they have to follow what we plan regarding fertilization, etc. – and in the process, we train them. They can come in as contract workers and plant and harvest according to our standards."*

One critical success factor in this approach is the presence of strong cooperatives that are able to negotiate with the company and ensure smallholder interests. The cooperatives serve to coordinate the administration of the plots. Musim Mas provides management advice in the form of a dedicated advisor. The cooperatives are funded by a trust set up with the company's share of the proceeds of a particular period in the plantings' productive life.

Impact

The advantages of the approach include more consistent application of agronomic techniques, and thus higher yields. Sang noted, *"Initially, to convince them to hand over management of land to a cooperative approach was a big task: they had seen other smallholder projects fail, and they were worried. But they were very happy when they saw the results."*

However, detailed benefits in terms of smallholder productivity or income have not been evaluated. Some experts strike a cautionary note regarding company-managed approaches. Professor John McCarthy of Australian National University notes:

> *"Companies may prefer a benefits-sharing agreement rather than having smallholder farming per se. The plantations want to manage the land themselves so they can boost productivity and avoid the problems associated with managing smallholder plasma. Unless effective, transparent and accountable systems with third party monitoring are in place, there's no assurance the smallholders will get the benefits that they thought were promised. They can enter into agreements without having obtained a clear understanding of the arrangement and feel bitter when they don't see the benefits they expected being delivered."*

Supply Chain

Smallholders face several supply chain challenges in the production and sale of oil palm fruits. To be able to sustain operations and sell their product, they need access to credit, timely and consistent access to mills, and reliable infrastructure.

Access to Credit

- Access to credit for initial investment is needed for planting, as the process of land acquisition, clearing, and planting can be a massive upfront investment for smallholders, and these farmers often lack collateral. The delay in the productive lifecycle of oil palm also means that these initial loans must be structured to allow deferred repayment.
- Access to working capital for ongoing inputs is needed to allow smallholders to consistently use fertilizer and other inputs over the life of the crop.

FAO's Garry Smith highlights the importance of access to credit: *"Access to credit is a cross-cutting issue that's critical. Farmers don't have registered assets against which they can borrow, and the financial system will only lend against unreasonable collateral requirements, not on cash flow. It hamstrings smallholder farmers."*

Access to Mills

- Consistency of market access is crucial in oil palm, especially if mills are not contractually obliged to buy from smallholders (such as with independents).
- Ability to access multiple competing mills to allow farmers to seek the highest price, while recognizing that systems must be in place to ensure this does not mean defaulting on loans from mills.
- Negotiating power and transparency regarding mill pricing, taxes, and fees is important particularly among independent smallholders. Negotiating power when restructuring relationships during replanting is cited as particularly pertinent.

One stakeholder sees the ability to access multiple mills as critical: *"You don't want smallholders to be captive to a monopsonistic situation. You want to encourage competition in the supply chain so that smallholders are not too dependent on one buyer."*

Infrastructure

- Sufficiency of transportation infrastructure is particularly important in oil palm (even as compared to other crops) due to the need for processing soon after fruits are harvested.

Gert Vandermissen of Siat described, *"Especially in Africa, there are major problems with infrastructure and roads. Our biggest challenge is bringing fruits from the farm to the point where we process it."*

Several companies, including Siat Group, have projects underway to improve supply chain factors.

4 **Supply Chain Example: Developing Infrastructure as a Long Term Investor**
Siat Group (Nigeria, Ghana, Gabon, Cote d'Ivoire)

Challenges

Lack of adequate infrastructure has been a major impediment to the agriculture sector broadly. Due to the time-sensitive nature of oil palm harvesting, this is a particularly critical challenge for this crop**.** Functioning palm oil supply chains require roads, ferries, bridges, and access to water and electricity. Smallholder farmers often located in remote, rural areas suffer from being able to transport their FFBs in time to local mills.

The lack of proper infrastructure in remote areas has been a major challenge for Siat, one that the company has proactively tried to address. Siat is a Belgian company that owns oil palm and other tree crop plantations in Nigeria, Gabon, Ghana, and Ivory Coast. The company employs in Ghana about 7,000 smallholder farmers, who produce 75% of its oil palm, while the remaining 25% is produced by its nucleus plantations.

While Asian countries also face this challenge, access to critical infrastructure, such as roads, water, and electricity is an even greater problem in many African countries. *"A big issue for us is getting the oil palm fruit from smallholder farms to points where we can process them,"* explains Gert Vandersmissen of Siat. *"In Gabon, for example, where we operate, there are only two major highways in the country. During the rainy season, traveling becomes even more difficult."* Due to the proliferation of cellular phones, communications has now become easier even in remote farms, but physical infrastructure still remains underinvested.

Activities

To address this challenge, Siat has taken over the role of developing and maintaining infrastructure in many of the regions where it operates – a role traditionally reserved for national or local governments. In Ghana, Siat has developed about 500 kilometers of roads in order to connect smallholder farms to collection points, some of which are up to 30 kilometers away. The company also updates and maintains these roads on a regular basis.

As a service to its farmers, Siat has built about 650 housing units for its smallholder families and several schools to provide education for the children. The schools provide education up to the secondary level catering to children up to age 16. In Gabon, Siat has also built several hundred housing units for smallholders. In Nigeria, where roads are more prevalent, Siat provides electricity to villages where smallholder farmers reside to compensate for unreliability of the national electricity service, which often fluctuates.

Impact

Siat sees its investments in local infrastructure as having vital impact on both its business operations, and on the communities in which they operate. Comments Vandersmissen, *"We view ourselves as long term investors in these countries. Profitable palm oil production starts only after about seven years being planted, and we know we need to be aware of this timeline that the farmers face."* Across the four countries where Siat operates, the company invests about 12 million Euros per year in community development projects and affects about 50,000 lives, estimates Vandersmissen. *"We are partners in these communities for the long haul, and we go through both good and bad times together with the farmers,"* he concludes. While the impact of these efforts in terms of improved business operations or community development have not been fully assessed, anecdotal results include catalyzing new local business development (for example, attracting banks to open locally due to improved business climate), as well as improving housing conditions and access to education. While infrastructure is ultimately a governmental responsibility, Siat has invested in ways that fill this gap and benefits both its business and society.

5 **Supply Chain Example: Providing Inputs on Credit to Smallholders**
GOPDC (Ghana)

Challenges

Generally, smallholder farmers need to be able to purchase inputs on credit – for initial planting materials, and for ongoing inputs like fertilizer. Almost all plantation companies that have formalized relationships with smallholders provide some kind of credit or input support to their source farmers. Whether the relationship is contractually bound, or that the company is the only mill operator locally, these are instances where the company has a vested interest in the productivity of their smallholders.

In the course of research and discussions with experts, no companies stood out in terms of having a single best model for providing credit to smallholders. GOPDC, though, provides an example of how a company can explore different structures for smallholder credit, learning and adapting based on experience.

Activities

GOPDC sources 75% of its crop from smallholder farmers. The company has used several mechanisms to provide quality seed stock to these growers. Gert Vandermissen describes the overall objectives of their credit system: *"We want our smallholders to get the best inputs on the market, so we sell them one year old, germinated, disease-resistant seedlings."*

Initially, GOPDC would enter into contractual agreements with smallholders who wanted access to credit. Vandermissen explains, "*They sign a contract agreeing that for seven years, they don't have to pay anything back. Then, in the repayment period, it's a very spread out loan, since we know that yields build slowly and that we don't want to deflect too much from wage initially."* Like with many companies, GOPDC collected repayment comes through a deduction on delivery: *"After year seven, each time the smallholder delivers fruits, we deduct for example 10 %; once the annuity has been paid, the farmer gets the full value of his crop. This percentage can be flexible depending on the farmer's budget, and linked with low or high world market prices for palm oil."*

However, GOPDC faced significant challenges with defaulting on the loans. *"They have an obligation to sell to us based on the contract. But when the world price is low, it's harder to get them a good price, and they'll try to seek out a better one."*

Because of these challenges, which many companies report sharing, GOPDC recently shifted to a different credit model. Instead of providing seedlings on credit, their strategy is now "cash and carry": farmers can buy the seedlings at a subsidized price, without a contract or an obligation to sell back to the company. This means that farmers must have

access to either savings or outside credit in order to purchase the seedlings – but once they do, they have more flexibility in selling their fruit to either GOPDC or another company.

Impact

Vandermissen reports that this rethinking of approaches is ongoing, and neither the credit model nor the cash and credit model is without challenges. The credit model created risk of default; cash and carry is more straightforward for the company to administer, but requires smallholders to be able to afford the subsidized price. GOPDC's evolution of approaches, though, is reflective of the type of ongoing learning and adjustment required to work effectively with smallholders.

Enabling Environment

There are several types of factors related to the enabling environment that affect smallholder livelihoods. While these factors may be outside the direct influence of smallholders, they set the context for smallholder development.

Organizing Structures

- Type of smallholder structure, whether independent, supported, or a hybrid, can be a major influencing factor on the conditions faced by smallholders.
- Level of organization among farmers, for example through a smallholders' association or cooperative; these take a variety of specific forms (e.g., farmer-initiated or run by the plantation company).
- Capacity of smallholders' associations in management, negotiations, and service provision to members.

Simon Winter of Technoserve sees organizing smallholders and developing the capacity of cooperatives as essential steps to improving productivity and sustainability: *"The first question is how to give smallholders bargaining power – if you're independent, you're not going to get a decent deal with the buyer. But even if you're organized, you face general challenges of farmer groups: you need to run the group as a business."*

Legal Structure

- Government policies that influence smallholder development range from requirements on plantations for smallholder allocations, to price-setting formulas, to the administration of cooperatives.
- Land tenure is a continued concern in oil palm, with many areas of cultivation (especially Indonesia) inconsistently enforcing laws requiring acquisition of land, especially land held through native customary rights.

Sawit Watch's Norman Jiwan emphasized the continued challenge of land tenure in Indonesia: *"Of course, a key issue is land titles. The law recognizes indigenous peoples' rights to land, but there's no basic principle of self-determination as to those rights. There's rarely full free, prior, and informed consent."*

Market Dynamics

- Accessibility of certification systems, including appropriate mechanisms for incorporating smallholder involvement in certification, and sufficient demand for certified product.
- Volatility of global prices, in terms of how the market price ultimately translates into individual smallholder incentives.
- Access to reliable market information regarding price dynamics and any relevant opportunities to participate in value-added portions of the supply chain.

Jonas Dallinger of Thailand's Bureau of Agricultural Economic Research expresses both the opportunities and challenges presented by smallholders' role in certification: *"We need to make sure that sustainability certification doesn't mean that at the end smallholders will be ruled out of the market. And we need to try to build smallholders' capacities and impart truly improved practices, not just get them to comply with criteria."*

Social Development

- Access to health and education services is essential to the well-being of smallholders, plantation workers, and their families; the regions of oil palm cultivation often have low human development index scores.
- Gender dynamics are an important consideration in smallholder schemes, particularly when considering the effects of

introducing significant new income streams.

- Role of migrants is involved in several oil palm regions; countries like Indonesia have used oil palm smallholdings as a way of promoting internal migration.

Marcus Colchester of the Forest Peoples' Programme notes the importance of the effects of oil palm smallholdings on traditional gender dynamics: "S*mallholdings are always given to the heads of families, whereas customary land may be held evenly by men and women – it creates big gender issues that need to be focused on."*

Organizations that are working to improve these factors of the enabling environment include Fedepalma, Bidco, GOPDC, and the Oil Palm Research Association of PNG.

6 **Enabling Environment Example: Organizing Smallholders into Associations**
Fedepalma (Colombia)

Challenges

Many oil palm experts see organizing smallholders as a prerequisite for development, in terms of delivering extension services, establishing certification of independent smallholders, and improving smallholder negotiating positions with mills. While associations and cooperatives are no panacea, they do play an important role in smallholder development. Yet many farmer associations and cooperatives in the developing world are plagued with chronic mismanagement, inefficiency, and corruption, preventing them from successfully advocating on behalf of smallholders.

Activities

In Colombia, the national federation of oil palm growers (Fedepalma) plays a leading role in promoting smallholder development. Fedepalma provides information, research, and training programs to oil palm producers. They have played a leadership role in rolling out RSPO standards to the country. For the last 15 years, one of Fedepalma's major efforts has been promoting the development of smallholder alliances**.** These alliances consist of a central mill operator inviting local farmers to organize themselves into a productive unit. Jens Mesa-Dishington, President of Fedepalma, outlines how a process might start:

> *"The producer with the mill might invite 50, 100, even 200 peasants to get organized into a project. Perhaps they each have ten hectares of land to work with. Now you've got 500-2000 hectares to work with, and that creates advantages: now, the entrepreneur has more fruit for the mill, more efficiency, and more economies of scale for all involved. And the peasants ensure not only the sale of their fruit, but also the technical assistance and therefore a sustainable livelihood and better opportunities to grow."*

The peasants entering into the alliance could come from diverse backgrounds: they could be existing oil palm smallholders, farmers cultivating another crop, or entrepreneurs looking to newly acquire land.

Fedepalma has worked with over 100 of these Alliances**,** providing training in a number of areas. At the onset, Fedepalma, its research center (Cenipalma), and the mill might together provide technical agronomic assistance for smallholders. But Fedepalma also makes sure to support the smallholders in areas that strengthen the alliance itself: "*There's a lot of training needed on how to run a cooperative, on understanding that getting organized is useful*," says Mesa.

Mesa makes the case for these alliances on multiple grounds. First, he cites the need for increased technical knowledge among smallholders, and the opportunity to use the alliance as a platform for delivering training. He emphasizes the economies of scale for all parties, due to having consistent market access, as well as consistent supply. He also describes a role for the alliance in promoting social development in the area, the importance of education, and improving housing conditions.

Notably, Mesa cites the opportunity for these types of alliance-based smallholder structures to promote whole new relationships and attitudes between mills and smallholders. In some cases, mill operators have sold stock in the mill to the smallholders, and the effects have been striking: *"Owning productive land was already a big change for them, but to become shareholders in the mill, it changes their perspective on everything. They're ready*

to put in all their effort to protect the business."

There are, of course, challenges with this approach. Access to finance is crucial. The mill operator needs financing to establish the project, and as Mesa notes, *"If the private partner invests his own money to help the project for the smallholders along and it does not come to fruition, all the efforts are thrown away. And usually after that first experience happens, the entrepreneur says 'I won't do this again!'"* Similarly, smallholders may need access to bank loans if they are newly acquiring the land.

Impact

Looking across the alliances in the country, Mesa sees significant success. *"There are several examples in our affiliates [of companies providing best-practice smallholder support],"* he says. *"Together with the government, we've developed maybe 60-70% of the alliances in the country, and it's been very successful. For certain they have improved the livelihoods of the smallholders and their families, and it's a model that should be pursued in the future."*

An evaluation of several of the alliances by the consulting firm Alianza SNV-CECODES found several success factors among the alliances. These included market security, access to finance, and ability to tap into the business experience of the plantation company. Perceived threats to the success of the projects included the health status of crops, deterioration of public order in some regions, the high cost of fertilizers, untimely disbursement of bank loans, and volatility in international prices of palm oil (Rodriguez Raga et al 2010).

7 **Enabling Environment Example: Ensuring Fair Prices**
IFAD/Bidco (Uganda); GOPDC (Ghana)

Challenges

As a commodity crop, oil palm FFBs can see substantial price fluctuations, even on a month to month basis**.** These changes can lead to disincentives for smallholders to enter the sector or invest in improvements in their land. Billy Ghansah, an expert on oil palm in sub-Saharan Africa, cites these fluctuations as being among the major challenges facing smallholders: *"One of the primary issues is price fluctuation. It's a commodity, so you will always have fluctuations, but the fact that oil palm is a perennial crop makes it even more difficult, as you need to make a relatively long term commitment to the crop."*

In Uganda, the Government with the support of the International Fund for Agricultural Development (IFAD) has developed a partnership with the private sector to introduce and develop domestic production of oil palm**.** Palm oil accounts for about 80 to 90% of vegetable oil imports for Uganda, costing as much a $150 million of foreign exchange per year to the country. The Vegetable Oil Development Project (VODP) was developed in the mid-1990s to reduce Uganda's heavy reliance on imported vegetable oils by promoting domestic vegetable oil production. In particular, the project has worked in ensuring a transparent and fair pricing system through a unique mechanism. *"Palm oil is an extremely productive crop compared to other vegetable oils,* says Marian Bradley of IFAD. *"The industry has been very important for Ugandan smallholder farmers."*

Activities

Bidco Oil Refineries, Uganda's largest vegetable oil processing and marketing company, partnered with Wilmar to form a consortium for private sector oil palm plantation development called Oil Palm Uganda Limited (OPUL). The project recognizes that the private sector is a very large player who has a *de facto* monopsonistic position for both supplying inputs to farmers and purchasing their fresh fruit bunches. The investment agreement signed between the government and Bidco requires OPUL to provide all inputs to smallholders at the same cost it pays itself. More importantly, to avoid a situation where OPUL independently determines the prices it pays to smallholders for their FFBs, the agreement lays out a specific pricing formula that determines the prices that smallholder farmers receive for their fruits.

According to the formula, the reference price is that of crude palm oil (CPO) in Malaysia or Indonesia, adjusted to include transport costs to Uganda, the actual oil extraction rate, and a factory milling constant. Linking the price in Uganda to the world market price for CPO eliminates the risk of monopolistic buying

power by the sole purchasing private sector, thus ensuring fair financial returns to farmers. IFAD research shows that the price which Uganda smallholder farmers will receive for their FFBs represents about 75-80% of the world price, compared to about 60% paid to farmers in other countries in Africa. *"Smallholder farmers in this project understand that they're getting a fair price; they don't feel like they're just price takers,"* explains Bradley. An Oil Pricing Committee is currently being set up and will include members from the local government, the private sector and farmers; this committee will be responsible for validating the implementation of the pricing formula and monitoring that the price is adhered to by the private sector.

Price-smoothing efforts are underway by several companies. BOPP and TOPP, both now owned by Wilmar, take one approach. Ghansah describes their efforts as *"providing constant prices throughout the year which are relatively higher, though prices can be depressed or not in the local market."* GOPDC takes another approach, paying market prices on the spot but providing a year-end top-up based on the overall world market price trends. Price-smoothing efforts need to take local market dynamics into account. For example, Ghansah describes why the West African market led to these specific systems: *"The cropping pattern in West Africa is such that the first four months of the year can provide more than 50% of the annual crop, and that depresses prices in the local market. On the other hand, the prices shoot up during the third quarter because there is little crop."*

Impact

The VODP in Uganda has seen multiple types of positive impact on smallholders, in part as a result of the unique price setting mechanism. Comments Bradley, *"Once farmers realized they were no longer just price takers, we saw the participation grow. The price still fluctuates, but it's not because the private sector manipulates it to take advantage of the smallholders."* The increased popularity of palm oil farming has led to increased income for a large number of local residents. *"The smallholder farmers are definitely better off than what they would be doing otherwise, most likely fishing,"* explains Bradley. IFAD studies have shown that compared to a baseline survey, incomes have increased for smallholder farmers and in most cases, farmers have used the extra income to purchase food and improve their diets, and to pay family expenses such as school fees. IFAD expects that as a result of the project, farmer incomes would be, on average, about $3,000 per year. For a family of five, that translates to a per capita income of $600, significantly more than Uganda's national average of $270 per capita.

In addition, the project has led to increased investment in infrastructure, such as a ferry service and electricity, increased tourism as a result of improved infrastructure, and greater empowerment of smallholders and their families in the region. *"What we've learned is that putting together these multi-stakeholder partnerships take a significant amount of time investment and commitment, but the approach we took in developing the pricing policy has been very successful to date,"* concludes Bradley.

8 **Enabling Environment Example: Ensure Women Benefit from Oil Palm**
Mama Lus Frut Scheme (Papua New Guinea

Challenges

Smallholder oil palm cultivation in Papua New Guinea faces a number of challenges**.** One is low productivity. Productivity challenges in PNG include wasting of around 70% of loose fruit, poor crop management, inability to consistently save and invest back into farm inputs, and a shortage of available farm labor in some areas. Other significant challenges include social issues in the agriculture sector: for example, the introduction of cash crops like oil palm has been accompanied by new gender dynamics. Ian Orrell of PNG's Oil Palm Research Association (PNGOPRA) explains, *"Women are traditionally the farmers in PNG, but with cash crops, it suddenly puts men in the decision making role. The subsequent distribution and utilization of the cash from the farming activity often leads to domestic conflicts and sometimes violence, and men often use money less efficiently than the women do in supporting family livelihoods."*

Activities

The oil palm sector in PNG saw opportunities amid these challenges: they identified an approach to boost smallholders' productivity and livelihoods while also improving women's earning power and status.

The *Mama Lus Frut* scheme was introduced in a pilot region in 1997 and quickly scaled up to cover over 5,000 smallholder blocks by 2001. The program provides women in smallholder households with nets to collect the loose fruitlets dislodged from oil palm bunches during harvesting. Under the scheme, women are paid separately from their husbands for the loose fruit thereby guaranteeing payment for their labor in loose fruit collection. With the company paying women directly for their labor, women's incentive to harvest loose fruit increased significantly, to the extent that nearly all loose fruit is now collected.

The key element explaining the success of the program is that women are guaranteed payment of their labor. Women obtain individual cards (known as "mama cards") which they use to receive separate payment for their fruits. These payments – either in the forms of checks from the receiving mill, or received via transfers to the woman's bank account – allow the women an individual income stream beyond what they received in food crop cultivation, that they can dedicate to household use. As Ian Orrell puts it, *"In PNG, the income that goes to women is basically what gets directly applied to livelihoods, school fees, medical costs, clothes, etc."*

The program also enabled the "papas" to make greater contributions to the household. George Curry of Curtin University, who worked on the formation of the scheme, describes: *"Because of the traditional economy in PNG, there are significant barriers to savings funds when cash is available. It was difficult for husbands to commit cash to the household, because there were so many other social obligations on it. But with the mama card, husbands could make direct contributions of the FFBs that they harvested, placing them on the mama blocks to contribute to the household and compensate women for their labor."*

Impact

The scheme is seen as highly successful**.** On smallholder plots without the mama card, women received around 16% of household income; with the card, they get 29% (Warner and Bauer, 2002). Anecdotally, other results on social dynamics have included a decrease in the rate of smallholder domestic disputes reported to extension workers, an increase in financial independence allowing some women to establish small businesses, and more willingness by shop owners to extend credit to women.

One key success factor in the Mama Lus Frut scheme was the presence of multisectoral collaboration**.** OPRA and academic researchers were involved in the initial conceptualization of the research program to assess and expand the scheme. Plantation companies have played a crucial role in adjusting their payment schemes and providing financial support. The OPIC extension service promoted the scheme, hiring female extension workers for outreach. Each of these entities played a critical role in ensuring that the program was culturally relevant and successful.

There are some remaining challenges in the scheme. There have been some reports of smallholders placing FFBs on the loose fruit scales as a way of avoiding the loan repayment obligations that are associated with men's FFB harvest. However, researchers cite several ways of addressing this practice, such as changing the ways that companies calculate loan repayments.

The program's overall success has led to several types of replication. For example, a "mobile card" now allows for flexible use with family (e.g., adult sons) or hired labor, enabling smallholders to pay for labor in oil palm fruit rather than cash. A "C card" allows for further allocation within families, in order to prevent some of the intergenerational conflicts associated with crowded land.

Overall, the mama card and related payment initiatives are effective examples of a public-private collaboration aimed at improving smallholder livelihoods – both in terms of the economic productivity, and in positively affecting social dynamics within a local context.

4. Implications for Further Smallholder Development Efforts

Trends in Private Sector Efforts

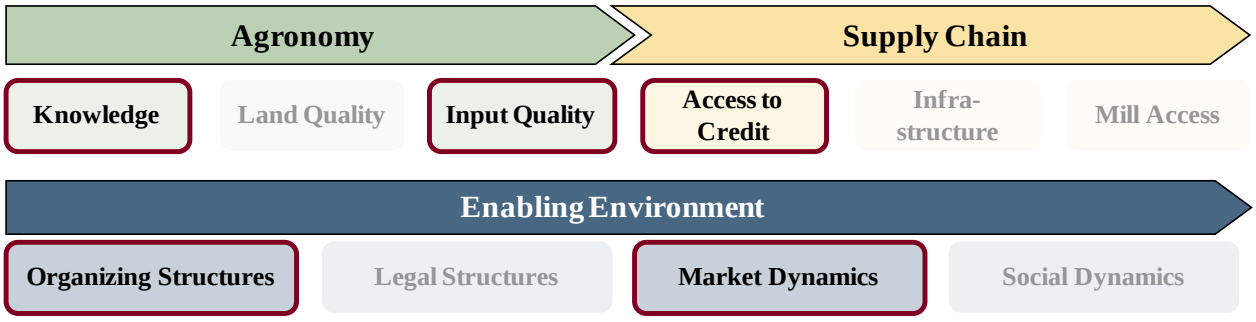
Beyond the specific case examples of existing projects, our research identified several themes regarding the role of the private sector in promoting smallholder development.

- More Is Needed: Despite important efforts by some companies, there is a need for significantly more engagement by the private sector in order to address smallholder livelihood challenges. There is a continued substantial gap between the yields of smallholder farms and that of plantations, highlighting the need for a sustained focus on the development of smallholder farmers.
- Leadership Vacuum: Stakeholders could not identify specific companies that are leaders in improving smallholder livelihoods in palm oil. In some other corporate sectors, such as the pharmaceutical industry, multiple leading companies model best practice approaches to corporate social responsibility efforts. The palm oil sector does not have widely accepted leaders in CSR related to smallholders
- Systems Matter: Few companies are working on enabling environment issues that can have large scale impact beyond their own smallholders**.** Several companies work on enabling environment factors in a more limited way, for example, by strengthening associations among their smallholders, or by addressing social issues in affected communities. However, few are working on broad enabling environment conditions, such as developing national institutional capacity related to extension and research. This theme stands in contrast to some other crops such as cocoa and rubber, where several initiatives are under way that take systemic approaches to development.
- Power of Partnering: Collaboration across sectors is a critical component of many existing efforts. While companies can play an important role in directly improving livelihoods of their associated smallholders, there is significant potential for more systemic challenges to be addressed through multi-sectoral collaboration

Opportunities for Further Engagement

Based on the existing examples as well as the factors identified as critical gaps, there are several opportunities for further engagement by the private sector. These opportunity areas reflect a subset of the many ways that the private sector can engage. The areas highlighted here represent the highest-potential smallholder factors where companies can use their assets and expertise to have unique impact on livelihoods.

Figure 5: Key Opportunities for Further Development Efforts



Each of these opportunity areas is described in more detail below. In addition to specific opportunities for companies, there are also ways that the IFC, the broader World Bank Group, and other donors can play roles. The IFC can also place conditions on its investments that require companies to engage on these opportunities.

Knowledge is a critical area for the private sector to engage, as there is a need for improvement in the kind of technical assistance and extension services that make smallholder productivity gains possible. Currently, the availability of these services is limited, especially among independent smallholders, and the quality is variable.

Opportunities for Companies	Opportunities for IFC and Other Donors
Invest in communications technologies for disseminating agricultural knowledge to farmers (e.g., mobile phone or radio-based communications strategies) **Improve the quality of government-run extension services** by working in public-private partnerships **Include other economic development opportunities in technical assistance** (e.g., intercropping techniques to boost smallholder income) **Invest in technologies that allow for incentivizing quality** of production (e.g., oil content measurement at the point of delivery)	**Research the business case** for improving oil palm smallholder productivity **Support intermediaries to provide technical assistance to independent smallholders** (through common curricula, innovative delivery mechanisms, or direct service provision through micro enterprises)

Input Quality is another significant driver of smallholder productivity, and there are ample opportunities for the private sector to engage. Companies have opportunities to support smallholders in the quality of their seed stock, as well as in more continuous inputs such as the application of fertilizer.

Opportunities for Companies	Opportunities for IFC and Other Donors
Expand access to plantations' seed stock, whether on credit or for subsidized sale; include independent smallholders where possible based on factors such as geographic dispersal of mills and extent of local access to credit **Create new incentive structures** that link the availability of inputs to the provision of technical assistance, and ultimately to the price paid for FFBs (e.g., by paying for quality instead of just volume)	**Support the creation and strengthening of research on seed stock**, through consortia of companies and/or national governments **Create a fund to reward companies that creatively incentivize their smallholders** to purchase and apply inputs consistently

Access to Credit is an important area of opportunity for the private sector to engage as it serves as a foundational component of smallholder activity. Smallholders need credit to be able to finance initial planting, access inputs, and ultimately to replant. While there are a range of existing efforts by plantation companies, banks, and governments to provide credit, there are significant gaps in the current approaches.

Opportunities for Companies	Opportunities for IFC and Other Donors
Provide plantation company support to smallholder efforts to obtain credit, via either direct credit or by guaranteeing loans from local banks **Work with banks to ensure understanding of the most appropriate credit mechanisms** for smallholders (e.g., the need for deferred repayment of principal) **Develop a levy system to incrementally fund smallholder replanting** over the course of production, implementing in conjunction with associations	**Provide capital to promote lending to smallholders**, whether through support to plantation companies or by capitalizing banks and microfinance institutions that are providing credit to the sector **Provide incentives for banks to accept a more flexible range of collateral and repayment terms**, to account for smallholder needs **Influence country governments to address aspects of land title uncertainty** that prevent smallholders from borrowing against their holdings **Promote new mechanisms among banking sectors** such as Certificates of Rural Product that allow for commodity buyers to lend against crop in the ground

Organizing Structures are key determinants of smallholder livelihoods, as smallholders who are organized into effective cooperatives, associations, and/or schemes are better able to receive technical assistance, bargain with mills, and engage in certification.

Opportunities for Companies	Opportunities for IFC and Other Donors
Support the development of associations of smallholders (whether independent or scheme) by providing management advice and financial support while preserving associations' autonomy **Partner with civil society organizations to identify the capacity needs** of local cooperatives	**Research models for engaging smallholder organizations in value-added portions of the supply chain** (e.g., through approaches like selling shares of a mill to smallholder cooperatives) **Identify and disseminate best practices among smallholder associations**, including their formation, governance, and ongoing management

Market Dynamics, and in particular certification, are pressing areas for improved smallholder engagement. Successful rollout of the RSPO principles and criteria will require full participation of smallholders, and there are several challenges still to be addressed.

Opportunities for Companies	Opportunities for IFC and Other Donors
Incorporate productivity improvements into steps taken toward certifying smallholders **Explore private sector collaboration strategies** to achieve certification of independent smallholders at a sustainable cost level	**Identify financial mechanisms to cover cost shortfalls to achieving certification** (e.g., buying CSPO certificates, or capitalizing intermediaries, or directly investing in companies) **Strengthen the governance structure of the RSPO** by encouraging broader participation (e.g., a greater smallholder voice) and instituting good governance practices **Support efforts to increase demand for certified sustainable palm oil** (e.g., through consumer campaigns) **Research the future of price premiums** resulting from achieving certification and how these premiums could be passed to smallholders

Recommendations for Prioritizing Opportunities

There are several recommendations that companies should consider in identifying how to select the opportunities where they are best suited to engage.

Companies should identify opportunities for shared value creation[3] that improve smallholder livelihoods as well as providing economic value for the company. Efforts that focus on issues in which both companies and smallholders stand to benefit from improvements are more likely to succeed and be sustained in the long term. Several of the opportunities identified above could create shared value for the business and for smallholders. Companies seeking shared value opportunities might look at productivity interventions such as promoting access to credit, providing low-cost seed stock, and providing technical assistance aimed at long-term sustainability.

Investments in smallholder development should focus on issues that leverage the company's core capabilities. For instance, agricultural input companies are well suited to benefit smallholders through increased research and development on seedlings, but may be less well positioned to provide unique value in areas such as infrastructure development.

The challenges affecting smallholders' livelihoods – especially those related to the enabling environment – extend well beyond any one company's (or even one sector's) reach. In many cases, working in partnership with governments, NGOs, donors, and/or other companies will allow acceleration of impact. Smallholder development efforts should be designed and conducted in partnership with other actors through collective impact strategies – partnerships where multiple actors

[3] *For more context on shared value creation as a strategy for corporate social responsibility, see "Strategy and Society: The Link between Competitive Advantage and Corporate Social Responsibility," a Harvard Business Review article (2006) by Michael Porter and Mark Kramer. Porter and Kramer describe the traditional motivations for CSR as assuming that business and societal interests are working in opposition. In contrast, a shared value approach focuses CSR efforts onto the social dimensions of a company's competitive context, allowing for CSR efforts that use unique corporate assets and provide value to both the business and to society at large*

contribute according to each of their comparative advantages.

Companies should also take advantage of the existing momentum in the field on certain issues to increase their chances of success. There is momentum – globally and in specific countries – on issues such as certification and access to financial services for the poor. Companies can build on this momentum by linking their smallholder productivity work to broader trends, for example by working with emerging microfinance organizations, or by including productivity advice into training programs focused on environmental sustainability.

Companies should also consider the scale of impact of interventions, and focus on opportunities with large-scale, transformational benefits that can serve as models for replication, rather than focusing only on niche projects aimed at local relations.

Finally, companies need to measure the results of smallholder development efforts in order to learn effectively to inform future projects.

Additional Implications for the Field

Based on the current landscape of oil palm smallholder challenges and efforts by the private sector, there are several other questions that emerge as topics for further research in the sector:

- Lessons from Other Crops: The oil palm sector could more proactively consider lessons from smallholder development efforts in other crops when formulating their approaches. While tree crops such as cocoa and rubber may provide the most direct parallels, other crops, such as coffee, that have historically received more international development attention may be informative as well.
- Development Opportunities for Others in the Sector: Looking beyond smallholders, there are substantial questions to be addressed around development opportunities for plantation workers, surrounding communities, and other stakeholders in the sector. Issues such as labor conditions need to be addressed in these contexts.
- Policy Dialogue on Cross-Cutting Issues: Other critical issues in oil palm that affect smallholders and the sector at large need to be addressed through high-level policy dialogue. These issues include environmental impact, the role of climate change, and land rights issues.
- Deeper Assessment of Country-Specific Smallholder Needs: The challenges facing the palm oil sector vary significantly across countries. This is particularly true in smallholder cultivation, where geographic differences in relationship structures can present very different opportunities across countries. In order to target corporate engagement on the most effective levers, the sector should further explore how these opportunities and guidelines would be applied in different country-specific settings by conducting country-specific needs assessments and developing tailored solutions.

5. Conclusions

Smallholders represent a critical component of the palm oil industry, as well as a significant opportunity to improve livelihoods in resource-poor settings. The major factors that affect smallholder development include agronomy, supply chain, and enabling environment issues – and there are examples of existing private sector efforts to address each of these factors.

While private sector efforts have benefited some smallholders, significant opportunities exist for corporations to commit to smallholder livelihood development in ways that link efforts more closely with their business priorities and create large-scale livelihood improvements. Based on views of stakeholders, the most promising opportunities for corporations to improve smallholder livelihoods include creating new incentive structures that reward farmers for utilizing agronomy best practices; working with financial institutions to develop appropriately-designed financial products for farmers; and incorporating productivity improvements into steps taken toward certifying smallholders.

These private sector efforts should take into account opportunities for shared value creation, leverage the company's core capabilities, work in partnership with others, leverage existing momentum in the field, aim for achieving large-scale impact, and measure the results of their efforts.

Donors and development agencies, such as IFC, can play a catalyzing role to set the conditions for private sector involvement, for example, by supporting innovative models and research efforts that encourage additional investments.

We hope that the opportunities presented here will inform and energize the field to take action on the challenges faced by smallholders, leading to improved smallholder livelihoods in the oil palm sector.

Appendices

Appendix A: References

1. Ayat Rahman et al. 2008. "The Malaysian palm oil supply chain: The role of the independent smallholder." *Oil Palm Industry Economic Journal* Vol 8 (2): 17-27.

2. Chaichee, Nadia. 2007. "Smallholder Production of Palm Oil – Sustainable Source of Income? Case Indonesia." FAO case study.

3. Colchester and Jiwan. 2006, "Ghosts on our Own Land: Indonesian Oil Palm Smallholders and the RSPO." Unpublished manuscript, Forest Peoples Programme and Sawit Watch.

4. IFAD. 2010. Republic of Uganda: Vegetable Oil Development Project. IFAD Working Paper 4: Oil Palm Development.

5. IFC Agribusiness Department. 2009. "Investment Guidance Note: Palm Oil Sector." Draft in progress.

6. Koczberski, G., Curry, G. and Gibson, K. 2001. "Improving Productivity of the Smallholder Oil Palm Sector in Papua New Guinea." Research Unit for the Study of Societies in Change, Curtin University of Technology, Perth, Western Australia.

7. New Britain Palm Oil Limited. 2010. "Sustainability Report 2009." Available http://www.nbpol.com.pg/environment/rspo.html

8. Porter and Kramer. 2006. "Strategy & Society: The Link Between Competitive Advantage and Corporate Social Responsibility." Harvard Business Review.

9. Rodríguez Raga et al. 2010. "Las Alianzas Estratégicas Productivas en palma de aceite, un modelo aún vigente, con resultados importantes, que requiere algunos ajustes para su sostenibilidad. " Draft in progress, Alianza SNV- CECODES.

10. Teoh, Cheng Hai. 2010. "Key Sustainability Issues in the Palm Oil Sector." Discussion Paper, WBG Multi-Stakeholders Collaboration.

11. Vermeulen and Goad. 2006. "Towards better practice in smallholder palm oil production." *Natural Resource Issues Series No. 5*. International Institute for Environment and Development. London, UK.

12. Warner and Bauer, 2002. "Mama Lus Frut Scheme: An Assessment of Poverty Reduction." ACIAR Impact Assessment Series, Centre for International Economics.

13. Zen, Z., Barlow, C. and Gondowarsito, R. 2005. "Oil palm in Indonesian socioeconomic improvement: a review of options." Working Paper in Trade and Economics 11. Economics, Research School of Pacific and Asian Studies, Australian National University.

Appendix B: Sources in Figures

Figure 1: Smallholder Production in Major Producer Countries: Teoh 2010; Vermeulen and Goad 2006.

Figure 2: Palm Oil Productivity in Indonesia: Suharto, cited in Teoh 2010.

Appendix C: List of Interviewees

- Tulio Dias, Agropalma Group
- John McCarthy, Australian National University
- Billy Ghansah, Consultant to IFAD – Uganda Project
- Cheng Hai Teoh, Consultant to WBG
- George Curry, Curtin University
- Robert van Otterdijk, FAO
- Garry Smith, FAO
- Peter Thoenes, FAO
- Jens Mesa Dishington, Fedepalma
- Marcus Colchester, Forest Peoples Programme
- Motoko Aizawa, IFC

- Bruce Wise, IFC
- Panayotis Varangis, IFC
- Chris Richards, IFC
- Andrew Hamilton, IFC
- Juan-Jose Dada, IFC
- Rosediana Suharto, Indonesian Palm Oil Commission
- Marian Bradley, International Fund for Agricultural Development (IFAD)
- Tian Sang Tan, Musim Mas
- Simon Lord, New Britain Palm Oil Ltd.
- Ian Orrell, Oil Palm Research Association of PNG
- Norman Jiwan, Sawit Watch
- Gert Vandersmissen, Siat Group
- Simon Winter, TechnoServe
- Victor Ganoza, TechnoServe
- Jonas Dallinger, Thailand Office of Agricultural Economics, Bureau of Agricultural Economic Research
- Simon Siburat, Wilmar
- Patrick Labaste, World Bank

About FSG

FSG Social Impact Advisors (FSG) is an international nonprofit consulting firm founded in 1999 by Harvard Business School Professor Michael Porter and Mark Kramer. FSG works with corporations, foundations, donors, and nonprofits to develop high impact strategies, tailor operations, and evaluate results. Our work combines the analytical rigor and data-driven approach of world-class strategy development and evaluation with expertise in the management and organizational issues unique to the donor community. We have invested years of in-depth research into successful funder and nonprofit practices, recruited an outstanding consulting staff from top strategy firms such as McKinsey, the Boston Consulting Group, Monitor, and Mercer, and focused their talents on the unique strategic challenges of the social sector. FSG has 65 employees located in four office locations: Boston, Geneva, San Francisco, and Seattle. For more information, visit http://www.fsg-impact.org

For questions or comments about this report, please email Adeeb Mahmud at adeeb.mahmud@fsg-impact.org

2121 Pennsylvania Ave., NW, MSN 8P 807
Washington DC, 20433, USA
Tel. + 1 202 458 0430
Fax: + 1 202 974 4338
palmoilstrategy@ifc.org

www.ifc.org/palmoilstrategy