

Palm Oil Plantation

Industry landscape, regulatory and financial overview

2012 Update



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Overview of palm oil industry landscape in Indonesia

Buntoro Rianto/Hafidsyah Mochtar/Aditya Sasmito

Being the third largest export earner, palm oil plantation and its processing industry –producing Crude Palm Oil (“CPO”) and further refined products – has indisputably become an important industry to Indonesia. This industry is also considered a strategic element in the Indonesia economy. Other than its contribution in foreign exchange earnings, the cooking oil produced from the palm oil plantation is one of the dominant factors in determining the inflation rate of the Indonesian economy. Furthermore, the palm oil plantation industry actively provides opportunity for small-scale farmers to participate in the palm oil planting, develops the rural economy and generates significant employment.

Upstream, which covers the plantations and CPO production, continues to take the lead in growing the palm oil plantation industry, although downstream (i.e. refinery) also plays a significant role in sharpening and leveraging the industry.

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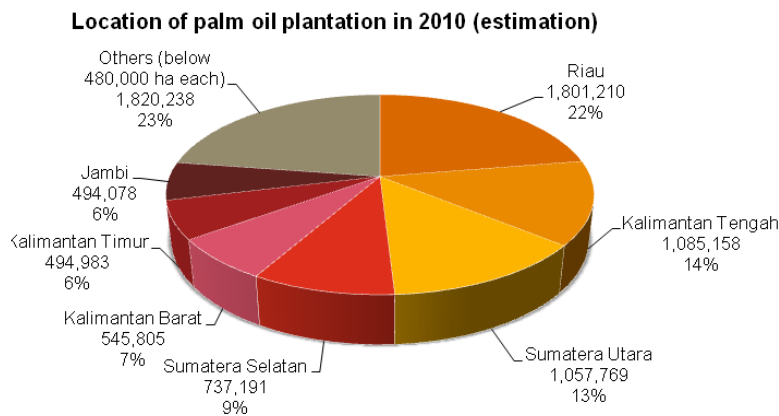
Awareness of sustainable practices in planting and along the supply chain, at the overall industry level, has been boosted and has certainly become as crucial as the conventional financial parameters (e.g. profitability, market shares, stock price, etc).

We have highlighted the statistics and current trends in palm oil plantation below. The need for sustainable planting practices is discussed in a separate section.

Plantation Areas and Owners

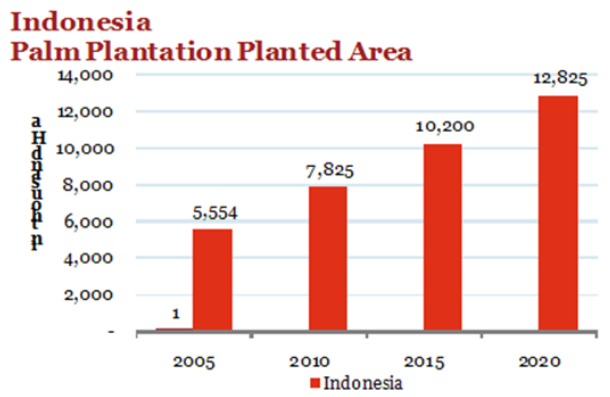
Oil palm plantations are largely concentrated in Sumatera, and date back to the Dutch colonial era. Given its long history, the development of palm oil plantation and its related infrastructure in Sumatera is relatively more advanced than in other parts of Indonesia. In recent years, Kalimantan has become a feasible alternative as it offers a large potential land bank for developing palm oil plantation.

In terms of geographic distribution, the 2010 data shows that 66% of the plantation area were located in Sumatera, 30% in Kalimantan, 3% in Sulawesi and the rest spread across other parts of Indonesia including Java and Papua.



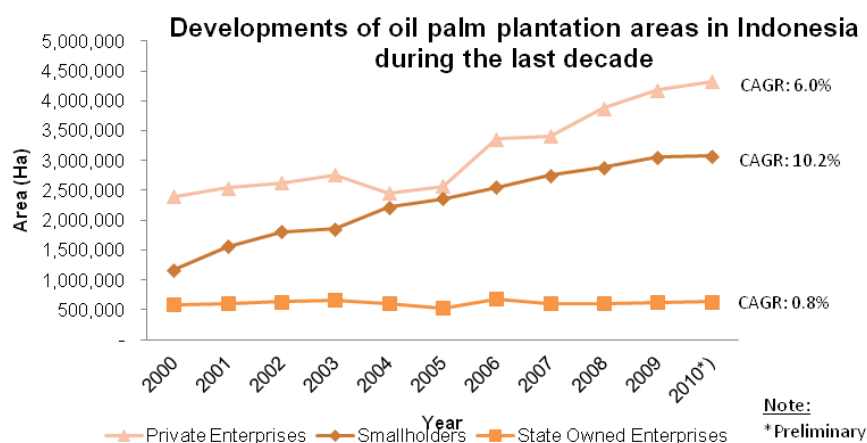
Source: Tree Crop Estate Statistics 2009-2011 for Oil Palm by the Directorate General of Estates

The current total plantation areas are approximately 8 million hectare (“ha”) and are projected to reach 13 million ha by 2020.



Source: Business Information Focus 2010

In terms of the distribution of key players, the industry is dominated by private enterprises, followed by small scale farmers (including plasma farmers) and state-owned enterprises.



Source: Tree Crop Estate Statistics 2009-2011 for Oil Palm by the Directorate General of Estates

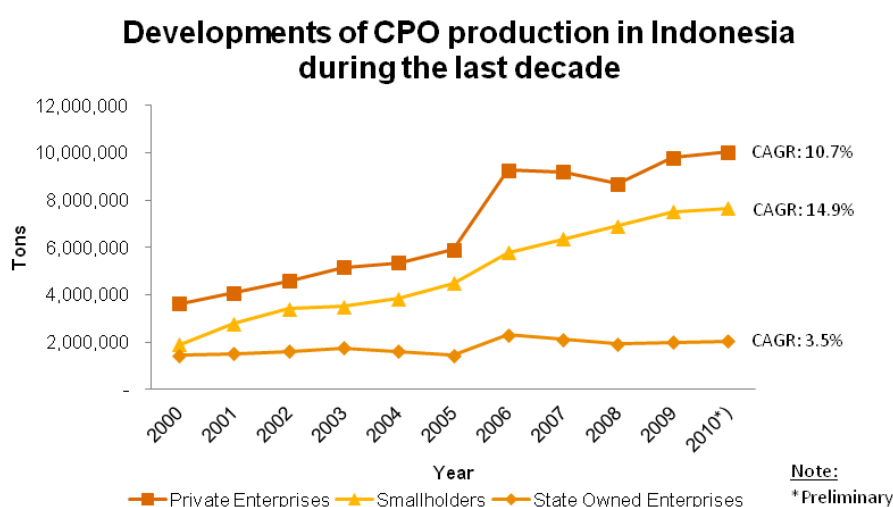
During the last decade, the palm oil industry in Indonesia has been developing rapidly, and has close to doubled in size (4.2 million ha in 2000 increased to 8.0 million ha in 2010).

In terms of plantation area, there has been a slight change in the mix of players in the past decade. In 2000, private enterprises accounted for 58%, and dropped to 54% in 2010. Meanwhile smallholders, who accounted for only 28% a decade ago, increased to 38% in 2010. The remainder is occupied by state-owned enterprise.

CPO Production

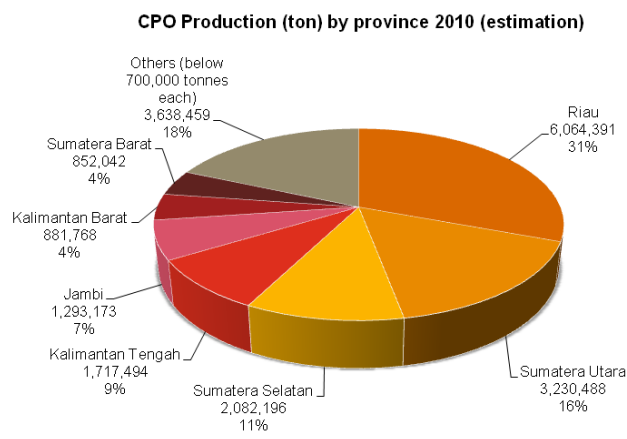
In line with the development of the plantation areas, the volume of CPO production also increased significantly from 7.0 million tons in 2000 to 19.8 million tons in the last decade, a significant increase of 182%.

The Compounded Annual Growth Rate ("CAGR") of CPO production from private enterprises (10.7%) during the last decade has been significantly higher than the CAGR of their plantation areas (of 6.1%), indicating a steep increase in productivity a high level of productivity. This high level of productivity is the result of various factors, such as increasingly mature plants (giving an increasing yield per hectare) as well as improvements to the operational productivity of the plantation and CPO processing.



Source: Tree Crop Estate Statistics 2009-2011 for Oil Palm by the Directorate General of Estates

In line with the plantation areas, which are predominantly located in Sumatera, the CPO produced in Sumatera contributed 65% of total nationwide production in 2010.

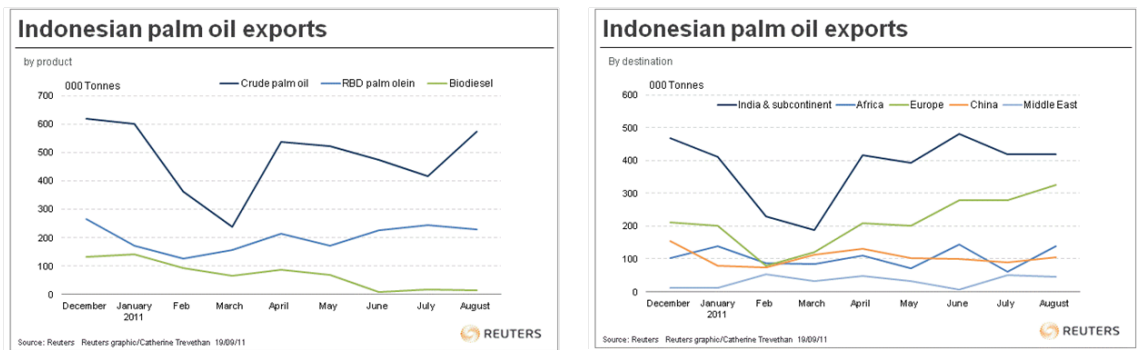


Source: Tree Crop Estate Statistics 2009-2011 for Oil Palm by the Directorate General of Estates

Export Market

The majority of CPO producers in Indonesia currently sells overseas. Markets in China and India are predominantly for culinary purposes (including cooking oil), whilst those in the EU are for biodiesel and confectionery manufacturing. The domestic market is mainly for cooking oil.

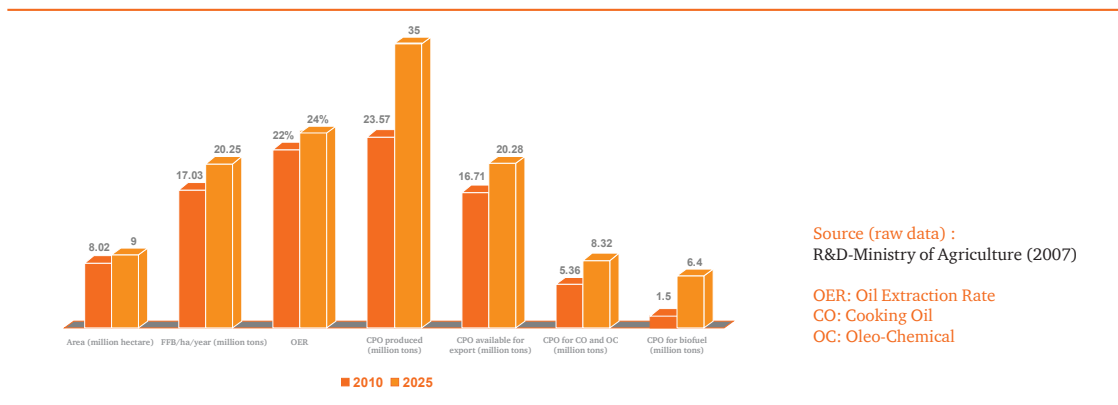
The export profile for 2011 is dominated by CPO ahead of olein and biofuel, whereas the export markets are dominated by India and China.



Prospects of palm oil industry in Indonesia

In the short term, it seems that land expansion will remain the main strategy increasing CPO production capacity. In the medium term, the trend of industry integration will increase, along with the growth of downstream industry for oleo-chemicals and biofuel.

As for the longer term development will emphasize more efficient and effective planting management as well as CPO mill processing management to increase productivity. The following chart features key metrics of palm oil industry development targets in Indonesia.

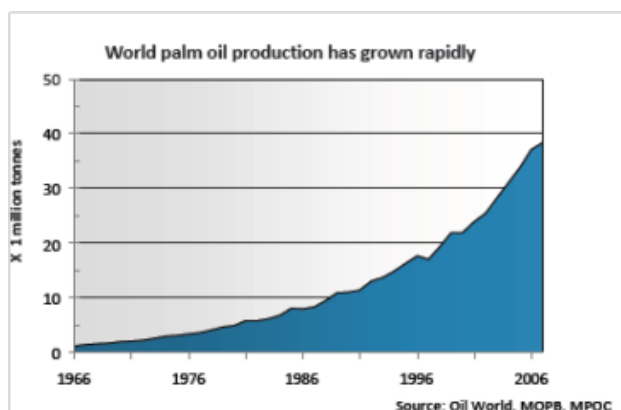


Implications of Sustainability and Climate Change for Business

Rob Evans/Rob Daniel

Strong global demands for Palm Oil...

Palm oil is the second most traded vegetable oil crop in the world, after soy. Traditionally used in manufactured food products, it is an increasingly important ingredient in cosmetic / health products, and is now found in >50% of packaged supermarket products. Palm oil is also the most productive vegetable oil, producing around 10 times more oil per ha than its nearest competitor soybean, and there is a growing demand for its use in bio-diesel and electricity production. Recent legislation, such as the EU requirements that 20% of all energy used and 10% of all transport fuel will come from 'renewable sources' by 2020, will only increase this further. Global demand for palm oil is therefore expected to continue to grow strongly. Indeed, the World Bank forecasts that an additional 6.3 million ha of palm oil plantations will be required to meet global demands by 2020. Much of this land is expected to be in Indonesia which, together with Malaysia, already accounts for around 90% of the world's palm oil exports, although Brazil and the Congo are also developing millions of hectares of sustainable palm oil. Brazil, with its program (called "Sustainable Production of Palm Oil") is providing funds to promote the cultivation of oil palms in abandoned and degraded agricultural areas, including long age deforested lands used for sugar cane and pasture. The country claims that up to 50 million hectares of such land already exist.

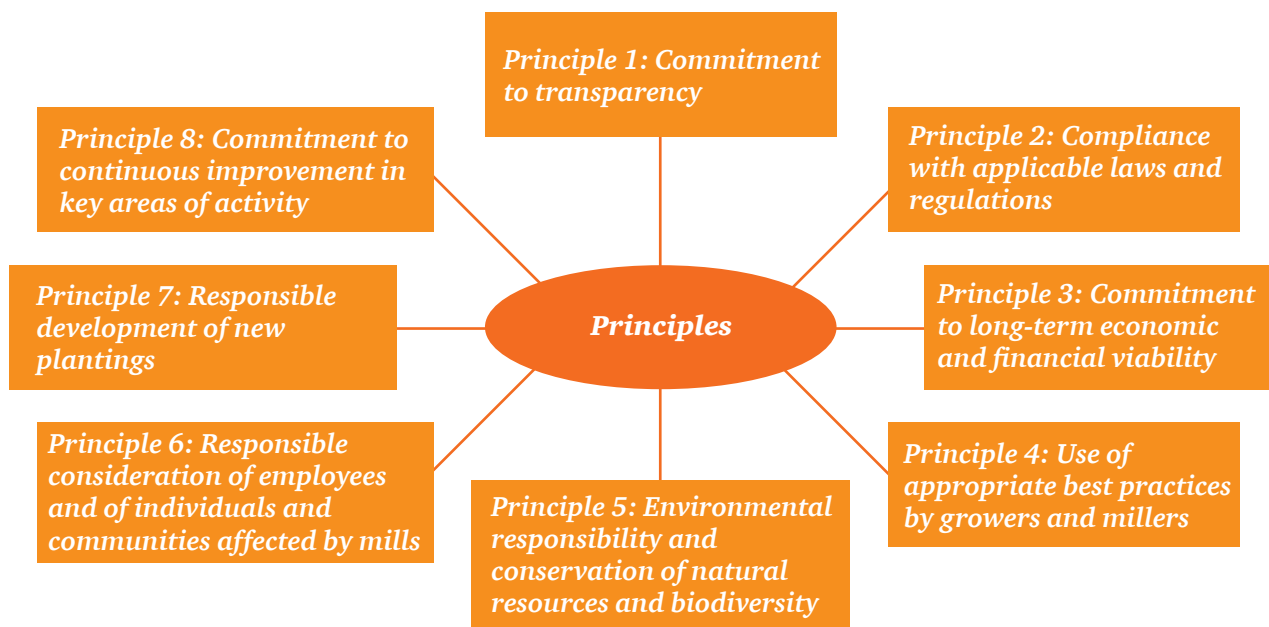


....can have adverse Local social & environmental impacts

Such phenomenal growth does not come without a price, however. The intricate web of modern supply chains means that palm oil-growing countries (and companies) are increasingly involved in, and affected by, global issues such as food security (driven by increased food demand from growing and more prosperous populations); attempts to improve rural livelihoods through changing agricultural practices; concerns around biodiversity and ecosystem collapse; and climate change issues - including the effect of forest conversion on greenhouse gas emissions. Indonesia's national target of doubling palm oil production to 40 million tonnes p.a. by 2020 will require both an increase in yields and more plantations. Average oil palm plantation yields are expected to increase from 3.5 tonnes to 4.5 tonnes a hectare (although some are talking about figures over 10 t/ha) whilst land under plantation could expand from 7.9 million hectares to about 10 million hectares. Much of the required land should be taken from existing stocks of degraded land, but if this is poorly planned and/or ill-managed, it could have serious consequences for the environmental and social capital of the country. Short-term profits could easily lead to long-term losses.

"Sustainable" Palm Oil - a viable solution?

The Roundtable on Sustainable Palm Oil ("RSPO") was set up in 2004 to try to address such issues, and to help stakeholders from across the value chain to develop best practices approaches to financing, growing, refining, distributing and using palm oil. The organization seeks to advance the production, procurement and use of sustainable oil palm products. This is done through the development, implementation and verification of credible global standards as well as through effective engagement of stakeholders. Its grower certification process, for example, is based on eight key sustainability principles covering issues including zero burning, protection of high conservation value forest, waste reduction and avoidance of social conflict. Membership of RSPO is voluntary, but is increasingly expected of growers supplying to multinational corporations. To date, however, only about 5% of the RSPOs members are certified growers.



Indonesian Sustainable Palm Oil

Increasing concerns have been raised that RSPO is skewed in favor of the manufacturers and retailers, whilst the bulk of the certification costs sit with the growers. At the same time the market has failed to incentivize uptake of certified palm oil - in 2009 only 10% of the 1.5 million tonnes of Certified Sustainable Palm Oil produced were sold at a material price premium. Key markets in Asia (notably China) accounting for ~90% of palm oil sales showed low enthusiasm for uptake of CSPO, although this may change as organizations such as Unilever drive these requirements through their supply chain. The government of Indonesia, on 29 March 2011, introduced its own solution to the issue – setting up ISPO, or Indonesian Sustainable Palm Oil: guidance to enhance the global competitiveness of Indonesian palm oil whilst also bringing it under stricter environmental legislation. ISPO will be mandatory for all Indonesian palm oil growers by 31 December 2014 at the latest. In September 2011 the Indonesian Palm Oil Growers Institution, GAPKI, resigned from the RSPO and formally committed itself to the ISPO process.

European Union Import Requirements

The EU is supporting the replacement of fossil fuels with renewable energy through the Renewable Energy Directive (EU-RED), but is also using the same legislation to impose mandatory sustainability criteria on all biofuels (including Palm Oil) entering the region. Importers of feedstocks must be able to demonstrate that there is a minimum 35% green house gas saving (rising to 60% in 2018) relative to fossil fuels across the lifecycle of the biofuel (including land preparation), and that it is not derived from land with either high biodiversity (e.g. High Conservation Value Forest) or high carbon stock (such as peatlands). In April 2011 the Netherlands further added to this commitment by declaring that all palm oil sold in the country (not just biofuel) must be sustainably produced by 2015, and it is pushing the EU to support this by exempting sustainably produced palm oil from the current 3.8% CPO import duty. Whilst many

European buyers are already signed up to RSPO and hence have already committed to be 100% certified by 2015, several now require compliance with both RSPO & EU-RED (and sometimes even Carbon Disclosure Project) criteria before they will enter into contracts.

Implications for the Industry

All of these requirements are making it increasingly important that operators in the Palm Oil sector are receiving clear and appropriate advice on sustainability strategy, palm oil traceability, certification and reporting to enable them to have the best access to the without-doubt commercially important opportunities that the huge global demand for palm oil offers. The last year has seen several Indonesian companies count the costs of getting this wrong, whilst others continue to reap the benefits of getting it right. As supply chain pressures increase, it is likely that we will see the Asian market take up similar initiatives to those launched by the EU. PwC's accurate, relevant and timely advice on these issues can help make sure that your business comes out a winner.

Four ways that PwC can help:

1. *Sustainability Strategy & Delivery*
2. *Measuring, Reporting & Assurance Services*
3. *Supply Chain Management & Traceability Services*
4. *Climate Change & Carbon Market Services*

M&A Rationale in Palm Oil Plantation

Mirza Diran/Hafidsyah Mochtar/Aditya Sasmito

Broadly speaking, the continuing increase in the demand for alternative or renewable energy and traditional food supplies has resulted in a positive long term price pattern for CPO. This has encouraged many foreign investors, including newcomers, to enter into the palm oil plantation industry and to consider Indonesia as the country in which to invest.

During the last five years Mergers & Acquisition rationale for the palm oil industry in Indonesia appears to have been evolving around the following considerations:

Licensing matters

Typical constraints such as the need to comply with environmental requirements during the land clearing process, the potential need for conflict resolution for land compensation, and potential overlapping of land rights have led foreign investors to prefer to enter merger with or acquire palm oil plantation companies which already have licenses than to start a business from scratch.

Business Diversification and Synergy

Energy players, global commodity traders and Asian based conglomerates (in addition to prominent local conglomerates) have shown a strong interest and have acquired palm oil plantations either in order to diversify their business portfolio or to create a synergy with their existing business portfolio.

We also saw a trend for some of the plantation players, in order to move to the next level of growth, to seek strategic partnerships, predominately with global commodities traders.

Renewable Energy Platform

Considerations received for establishing plantation bases for biodiesel development as part of renewable energy also become one of the key drivers, with companies wishing to become either the producer or purchaser of the biodiesel product. We have seen Korean, Hong Kong and Singaporean entities entering the Indonesian palm oil industry for that purpose.

Financing Needs or Distress

Indonesian palm oil companies which became inefficient in the face of high operating costs (fertilizer prices and logistics, financial commitment to supporting surrounding plasma development and operation, suboptimal yield ratio of its mill, etc) are forced either to form a strategic operational and financing partnership, or even to sell out.

Founders

There are certain investors who from the beginning intended only to take a role in securing licensing and offer the role of plantation development and operation to their strategic partners.

Forest Moratorium – Impact on the palm oil plantation

Laksmi Djuwita/Adi Pratikto

On 20 May 2011, the President of the Republic of Indonesia signed a Presidential Instruction No.10/2011 regarding Moratorium on the Granting of New Licenses and Improvement of the Management of Primary Forest and Peat Moss Areas.

The Presidential Instruction ordered a number of the heads of relevant ministries, government agencies and regional governments not to grant any new licenses/ permits, recommendations or location licenses for the use of primary forest and peat moss areas amounting to 64.2 million ha for a period of two years. Exceptions may be made in certain cases, such as where the principal

license has been granted by the Ministry of Forestry or for investment in certain strategic sectors such as geothermal, oil and gas, electricity and rice fields.

The Presidential Instruction does not indicate which locations will be subject to evaluation of the moratorium, but news indicated that Central Kalimantan will be the pilot project to evaluate the results of the moratorium. Subsequently, Aceh, Riau, South Sumatra, West Kalimantan, East Kalimantan, West Papua and Jambi may be part of the moratorium evaluation.

Palm Oil Plantation Company Association (GAPKI) have raised concerns that the Presidential Instruction could potentially discourage the expansion of palm oil plantation. This may also increase the investment cost (particularly the land price) and uphold the Government initiative to enhance the export of non-oil & gas commodities.

In spite of the concerns, there is also some positive support for the Presidential Instruction, since it will obviously support the effort to increase environmental sustainability.

A highlight on regulatory issues

Laksmi Djuwita/Adi Pratikto

Typically in developing countries, some problematic issues relating to land can occur. They are highlighted below.

Land Ownership

One of the main issues in relation to plantation in Indonesia is potential and perceived conflict with the local communities with regard to the ownership of the land. This is because of the lack of clarity as to land status and the legal ownership of land.

Despite efforts taken by the government, communities and other stakeholders, this land problem has been a classic issue for years in Indonesia. A careful check on land status is necessary prior to acquiring the land or starting the planting.

Land Size

Another land issue is the size limitation on the ownership of land.

The Ministry of Agriculture Regulation No. 26/Permentan/OT.140/2/2007 regarding Guidance on Licensing Plantation Business stipulates that a plantation company can have a maximum of 100,000 hectares of plantation area in one province, or twice that if the plantation area is located in Papua.

However, National Land Agency regulation No. 2/1999 regarding Location Licenses stipulates that a palm plantation company can only own/control a maximum of 20,000 hectares in one province, or twice that in Papua province, and a maximum total of 100,000 hectares throughout Indonesia.

Based on the above, a plantation company that operates in one province can only have a maximum 20,000 ha based on Regulation No. 2/1999 instead of 100,000 ha area based on Regulation No. 26/Permentan/OT.140/2/2007.

Furthermore, the limitation in Regulation No. 2/1999 applies to a group of companies instead of an individual company.

You may refer to our earlier edition of *Palm Oil Plantation - 2010* publication for more detailed elaboration on the regulatory issues relevant to investment in the palm oil plantation.

Tax Specific Issues on Plantation

Ali Widodo/Antonius Sanyojaya

The ongoing tax issues faced by palm oil plantation companies are the VAT on planting activities and employee-related expenses during the development stage. They are discussed below.

VAT on Planting Activities

The VAT Law stipulates that the creditable amount of non-separable input VAT incurred for the generation of sales of both VAT-able and non VAT-able goods should be calculated using a method stipulated by the Ministry of Finance ("MoF").

The relevant MoF regulation does not provide clear guidance on the input VAT treatment of a company operating as an integrated business, e.g. a palm oil plantation company that operates both plantation and CPO milling. Based on the Indonesian Tax Office's ("ITO") interpretation of the MoF regulation, input VAT incurred associated with palm planting activities is not creditable by an integrated plantation company. This is because the FFB harvested is considered "strategic" goods, which are exempt from VAT.

Recently the ITO reemphasised this interpretation and asked whether palm oil companies were in compliance with the MoF regulation. The ITO requested that they make the necessary amendments to the tax returns in the event of any non-compliance.

Employee-related expenses

Commencing 1 January 2009, for tax purposes, employee-related expenses incurred during the development phase can no

longer be capitalised into part of the "acquisition cost of a tangible asset", known as immature plantation assets. The taxpayer should instead claim the employment-related expenses as direct expenses.

This is on the contrary to the accounting treatment which requires the employee related expenses to be capitalised into plantation assets.

This essentially prevents the plantation company from doing new planting to enjoy the tax deduction on the employee related expenses during the development phase. This is because the palm oil plantation needs a long lead time for commerciality whilst the tax law allows tax losses to be carried forward for no more than five years from the date the loss occurred. However this treatment is beneficial for replanting as an early tax deduction is available.

When immature plantations are classified as mature plantations upon commercial production, the taxpayer should ensure that employment-related expenses are excluded from the mature plantation costs, otherwise the depreciation base would be challenged by the tax authorities.

Consequently, the taxpayer is required to maintain two sets of plantation assets schedules for accounting and tax purposes.

You may refer to our earlier edition of the *Palm Oil Plantation – 2010* publication for more detailed elaboration on the tax implications applicable to the life cycle of palm oil plantation companies.

Other Treatments of Plasma Arrangement

Buntoro Rianto/Andy Santoso

As discussed in the previous edition of the *Palm Oil Plantation - 2010* publication, there are typically two plasma arrangements which are “Perkebunan Inti Rakyat (‘PIR – Trans’)” and “Pola Kemitraan Melalui Pemanfaatan Kredit kepada Koperasi Primer untuk Anggotanya (‘KKPA’)”.

However, outside those mainstream plasma arrangements, we observe there are, at least another two schemes of cooperation between plantation company and farmers that have been adopted in the market, as elaborated below.

Profit Sharing Plasma

In this scenario, the farmers “lend” their land to the plantation company (or “Inti”) for development and in return, farmers will receive a certain share of the profits earned by the Inti from the palm oil plantation.

The ownership of the land stays with the farmers, whilst the Inti manages the operational aspects of the plantations, including bearing the entire investment costs up to the time that the plantations mature.

Usually, a cooperative is formed to represent the group of farmers.

The percentage of the profit-sharing and the method of calculation are agreed up front, and documented in an agreement. For example, the profits might be determined from the sales of the FFB less the relevant costs such as maintenance, upkeep, cultivation, harvesting, transportation and handling.

Just as with the KKPA scheme, subsequent to the maturity of the plantations, the Inti may charge a fee for managing the farmers’ plantations.

Modified PIR – Trans Plasma

Under this arrangement, the Inti provides funds to individual farmers owning palm oil plantations in certain areas. A loan agreement is prepared to support the financing scheme specifying, amongst other things, that the farmers must settle their loan from the Inti with a portion of the proceeds of FFB sales.

Farmers are then obliged to sell their FFB only to the Inti. In addition, the Inti provides a technical assistance to farmers so that farmers are able to operate their plantations in accordance with the Inti’s requirements.

The differences as compared to the Government-sponsored PIR - Trans scheme are as follows:

- there is no transfer of plantation assets from Inti to Plasma. The Inti provides assistance to the Plasma from the outset; and
- the farmers legally own or control the land and therefore no financing is needed by the Inti to acquire the land.

Accounting implications

Under both the profit-sharing and the modified PIR – Trans arrangements above, the Inti has the right to control the output of the palm plantations on the land provided by the farmers. This arrangement substantially contains a lease feature under ISAK 8/IFRIC 4. A further analysis is, however, required to determine whether the lease feature is a finance or operating lease.

Under the profit-sharing scheme, the leased asset is the land itself. As above, a further analysis is required to determine whether the lease feature is a finance or operating lease. If it is an operating lease, the profit-sharing is substantially similar to the lease payment on the “rented” land from farmers, and should be recorded as part of the cost of goods sold in the Inti’s books.

Under the modified PIR – Trans scheme, the leased assets are the land and the palm plantations on the land. If it is an operating lease, the payments to the farmers for the FFB purchased from plasma plantations are similar to the lease payments. As the farmers have loans repayable to the Inti, a certain portion of the lease payments should be allocated for the loan settlement. As a result, Inti’s books contain accounts such as loan receivables and lease payables. These loan receivables also represent financial assets under PSAK No. 55 and, therefore are measured at fair value initially and subsequently at amortized cost.

PIR Trans and KKPA Arrangements - Accounting for the financial guarantee provided by Inti to the bank

Buntoro Rianto/Andy Santoso

Under the PIR – Trans and KKPA arrangements, the Inti is required to provide a guarantee to the bank in anticipation of any potential default made by the cooperative.

The guarantee falls under the definition of a Financial Guarantee Contract because the holder (in this case the bank) is exposed to a loss on the failure of the debtor (in this case the cooperative) to make payments. This arrangement transfers a credit risk from the debtor to the issuer (in this case the Inti). Given this, the guarantee should be carried at its fair value in the balance sheet of the Inti.

Under unfavorable circumstances e.g. a sharp decrease of the CPO price which leads to a decrease of the FFB price, the cooperative may have financial difficulties in repaying its debt, and therefore a credit default would arise. Due to the guarantee provided by the Inti to the bank, from a broader analysis, this may create an estimated liability under PSAK No. 57.

Challenges In The Fair Value Measurement of The Biological Assets

Buntoro Rianto/Andy Santoso

The major part of the measurement activity in a palm oil plantation under IAS 41, is measurement of the palm trees as biological assets. In practice, a lower Fair Value Hierarchy model e.g. Discounted Cash Flows (“DCF”) is used to measure the fair value of the biological assets simply because there is no market-determined value.

We will now discuss the challenges relating to the application of key assumptions used in the DCF model, and point out the red flags to be considered by companies in exercising the model below.

CPO Price

Theoretically, the CPO price assumption should be the price that a market participant would expect. However, the determination of the CPO price, which is used to calculate the hypothetical value of FFB based on a company's oil extraction rate and a certain index stipulated in prevailing government regulations, is highly subjective.

In practice, some listed companies use forecasted prices based on long-term research data provided by market analysts, while others may use the average of historical prices or the price at the reporting date. There is no guidance on this matter, however companies may need to observe and analyze historical market facts and circumstances up to the determination of this assumption, for example: the pattern of the historical prices for a period at least equal to the plantation life cycle; historical exchange rates; and prices of the potential substitute products that may correlate with the prices of the CPO. In addition, abnormal conditions e.g. significant economic instability may need to be factored into the analysis supporting the assumption established on the CPO price.

Discount Rate

Under IAS 41, a current market-based rate should be used, albeit that IAS 41 permits the use of the pre-tax or post-tax rate depending on the expected cash flows assumption. For example, in the fair value measurement, which takes into account tax attributes that a market participant would consider when pricing an asset, a post-tax discount rate should be used and vice versa. The current market-based rate means the rate of return relating to the relative risk associated with the plantation assets (plantation assets specific discount rate).

A company should consider using different expected cash flows assumptions in determining the fair value of immature and mature palm trees, because both types of palm trees are exposed to different risks such as infertility, disease etc. This approach is more accountable from a general valuation perspective, as compared to the approach of differentiating the discount rates used for immature and mature palm trees, because it is based on operational statistics and analysis.

Other Assumptions

To produce FFB and to process FFB into CPO, a company incurs maintenance, overhead, harvesting, and transport costs. Companies should consider different infrastructures/ conditions in each plantation (e.g. distance from estate to oil mill, topography, soil, weather) in determining the costs and FFB productivity assumptions (tonnes of FFB produced per hectare). Therefore, it is expected that each plantation will have different expected cash flows assumptions.

In estimating the projected costs, companies may need to observe the historical pattern of the costs and perform a further analysis i.e. whether the costs trend correlated with observable market indicators such as inflation, exchange rate, etc. However, in estimating the projected productivity as the result of the changes of the biological transformation, companies may refer to the agronomical research performed by an independent party.

Considering the challenges and complexities in the application of the key assumptions used in the DCF model, involvement of a valuation expert is usually necessary. Having carefully assessed and applied key assumptions in the model, companies may additionally consider performing a sanity check to obtain an overview of the calculated fair value and to determine whether it is reasonable. One of the alternatives is to benchmark it against recent market transactions for palm plantations.



Biodiesel : Its Future And Challenges?

Laksmi Djuwita/Adi Pratikto

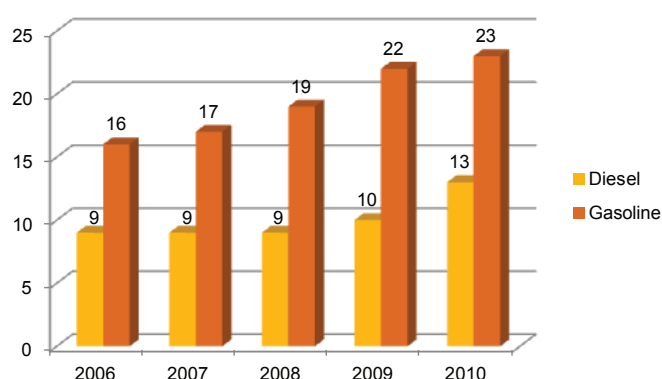
The current demand for biofuels in the world is largely driven by government legislation concerning biofuels blending ratios. This is obviously to reduce dependency on fossil fuels and to increase support for biofuels to prevent the adverse climate change.

The Indonesian government has formulated its policy on the use of biofuels through several pieces of legislations issued in 2006.

The National Energy Management Blueprint (2005) aims for the utilization of biodiesel in Indonesia to reach 6.4 million kiloliters in 2025, which represents 20% of national transportation diesel oil consumption, or 5% of total national diesel oil consumption.

The trend of fuel consumption indicates an increase in diesel consumption in Indonesia.

Fuel Consumption in Transportation Sector (in Million Kilo Liter)

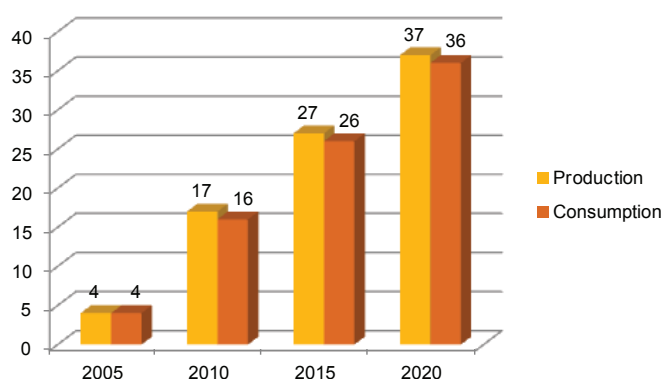


Source : Indonesia Biofuels Annual 2001 from Handbook of Energy 2010, USDA Foreign Agricultural Service

There are various factors that support strong biodiesel growth in Indonesia, such as the increasing population, economic growth and the availability of feedstock.

Globally, the Organization of Economic Co-operation and Development (“OECD”) estimates the growth of biodiesel consumption and production at a Compound Annual Growth Rate Of 8% during the period 2010 – 2020.

Production and Consumption of Biodiesel (in Million Tonnes)

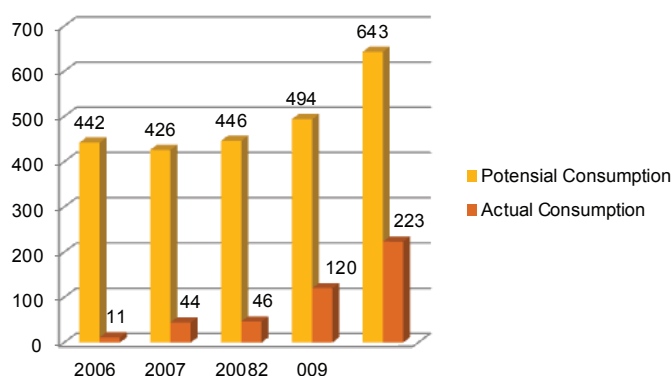


Source : OECD-Food and Agricultural Organisation Agricultural Outlook 2011 - 2020

Challenges

Unfortunately, despite the potential demand for biodiesel, the actual growth of the biodiesel industry in Indonesia has not been as good as expected. Compared to the potential biodiesel consumption, the actual biodiesel consumption is still at a very low level.

Indonesian Biofuel in Transportation Sector (in Million Litre)



Source : Indonesia Biofuels Annual 2001 from Handbook of Energy 2010, USDA Foreign Agricultural Service

For example, in the first semester of 2011, the industry produced 160,000 kiloliters of biodiesel, which only represents 12.3% of the government blending mandates (1.3 million kiloliters).

It would appear that the government blending mandates cannot be achieved due to the increase of feedstock price i.e. CPO. The CPO price has a linear relationship to the increase of the price of biodiesel. As statistics shows, when the government initiated the utilisation of biofuels, the price of CPO was only around USD400/tonne (in 2006) whilst the current price is over USD1,100/tonne.

The Way Forward

The government believes that the biofuels industry needs more support to develop and some initiations have been taken place.

To support price competitiveness, the government and parliament has approved the increase of biofuel subsidies in the 2012 fiscal year to IDR2,500-3,000/liter.

To promote the supply availability of the feedstock, the government plans to provide incentives for feedstock producers who prioritize supplies to domestic biodiesel producers. At this stage, the form of this incentive has not been disclosed.

In addition, the government also encourages private sector involvement, including calling on more gas-station operators to participate in biodiesel production and, distribution, and encouraging infrastructure projects to include areas other than Java and Bali.

Your PwC Indonesia contacts

For further information on how PwC Indonesia can assist you, please contact one of the following specialists based in our Jakarta office:



Ay Tjhing Phan
+62 21 528 90658
ay.tjhing.phan@id.pwc.com



Buntoro Rianto
+62 21 528 90679
buntoro.rianto@id.pwc.com



Andry Atmadja
+62 21 528 90635
andry.d.atmadja@id.pwc.com



Ali Widodo
+62 21 528 90623
ali.widodo@id.pwc.com



Antonius Sanyojaya
+62 21 528 90972
antonius.sanyojaya@id.pwc.com



Adi Pratikto
+62 21 528 91605
adi.pratikto@id.pwc.com



Hafidsyah Mochtar
+62 21 528 90774
hafidsyah.mochtar@id.pwc.com



Yusup Lemanah
+62 21 528 90870
yusup.lemanah@id.pwc.com

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This summary is not intended as professional advice. It is suggested to always consult with your usual PwC contact.

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PwC Indonesia

Jl. H.R. Rasuna Said Kav. X-7 No.6
Jakarta 12940 - Indonesia

Telp: +62 21 5212901

Fax: +62 21 5290 5555/5290 5050

Visit our website at

www.pwc.com/id