

## Day 3 – Wednesday, 9 May 2012

### **Oil Palm in Indonesia linked to trade and investment: Implications for forests**

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#### **BACKGROUND**

The palm oil industry is anticipating further expansion to fulfill growing demands for food, and to supply palm oil for the biofuels markets. Indonesia is the world's largest producer of palm oil. Indonesia and Malaysia together supply 85% of the global demand for palm oil. Due to its long history in the development of this commodity, Indonesia offers valuable lessons on the pros and cons of different business models for land use and benefits distribution. The expansion plans for oil palm in Indonesia, however, have also raised concerns about unintended social, economic and environment implications.

Indonesia's oil palm sector growth was modest until the 1980s and it experienced tremendous growth over the last decade. Between 1990 and 2010, the area of plantations increased 7-fold from 1.1 million ha to 7.8 million ha in 2010 (Direktorat Jenderal Perkebunan, 2011, Sheil et al., 2009). In line with estate expansion, Crude Palm Oil (CPO) production has continued to increase. In 1980, CPO production was 0.72 million tons, this increased to 2.41 million tons in 1990, and rose sharply to 7.0 million tons in 2000. At the end of 2011, Indonesian's production of CPO reached 23.6 million tons which accounts for approximately 45% of the global output of this commodity (Slette and Wiyono, 2011). Indonesia is striving to maintain its position as the world's largest palm oil producer, and is planning to expand its production to 40 million tons per year by 2020, twice the volume reached on 2010 (World Bank and IFC, 2011). To achieve this production target, the area of oil palm estates is expected to expand from 7.9 million ha in 2010 to 20 million ha by 2020, likely increasing pressure on forestlands. Annually, the export of CPO and derivatives generates over USD 12 billion in foreign exchange earnings.

The growth of the oil palm sector is largely oriented towards meeting food production needs in major emerging economies such as China and India, as well as Indonesian market. About half of Indonesia CPO production is exported in unprocessed form. Most of the remaining CPO is processed into cooking oil and about half of this is exported as well (Boucher et al., 2011). The rest of CPO is consumed locally.

Furthermore, while the oil palm sector was seen as potentially key to securing Indonesia's energy needs through CPO biodiesel production, this has not materialized. The biofuels sector has been slow to develop, as indicated by modest growth rates between 2006 and projections through 2011 (Slette and Wiyono, 2011). Recently, the sector has shown signs of growth (Yulisman, 2011). Nonetheless, in aggregate terms still less than 5% of the total CPO production in Indonesia is being used for biodiesel production. The amount of biodiesel produced in Indonesia has increased significantly from a mere 24 million liters in 2006 to approximately 650 million liters in 2011. Some of the biodiesel production is exported, a trend which is increasing. However, these figures do not imply that biofuels are blooming, since capacity utilization remains low. In 2011, it was estimated that capacity utilization was about 17%, leaving most of the biorefineries idle (Slette and Wiyono, 2011). Therefore, biofuel sector expansion is unlikely to pose a threat to food production dependent on CPO in the foreseeable future.

#### **Smallholders' involvement in oil palm production**

The first types of oil palm plantations in Indonesia followed a joint venture scheme between companies and smallholders called a Nucleus Estates and Smallholders (NES) scheme, a system tested

in Malaysia in the 1970s and later introduced in Indonesia as *Perkebunan Inti Rakyat* (PIR) by the transmigration program. The first PIR in the late 1970s were based on rubber plantations, followed by oil palm schemes in the 1980s (Levang, 1997). A more refined version of *PIR transmigrasi* was 'Primary Cooperative Credit for Members' scheme, *Koperasi Kredit Primer untuk Anggota* (KKPA), under which transmigrants are eligible to obtain subsidized bank loans (Potter and Lee 1998). This scheme emerged at the end of the 1980s. KKPA involves a similar structure to the PIR scheme, including a partnership between a company and smallholders. KKPA could be associated with a transmigration project, with local population joining the KKPA cooperative and transmigrants benefiting from a PIR scheme (McCarthy and Cramb, 2009).

The usual KKPA scheme relies on a contract signed between a company, smallholders grouped in cooperatives, and banks, under the supervision of the government. Farmers entrust their land to the company, which plants, manages and harvests the crops. The landowners are paid a percentage of the harvest revenue after deduction of plantation establishment and management costs. Local governments participate in the process through facilitation of discussions between the partners and land titling. Banks keep land titles as collateral, and the company is responsible for collecting the repayments from the farmers. Charges are made for these services, and they all add to the farmers' debts. Usually, the deal includes the handing over, from the village to the company, of a percentage of the total land to be developed. This land taken over by the company constitutes the nucleus of the plantation, in opposition to the plasma made up by all the smallholdings participating in the venture (Feintrenie et al., 2010a).

There are three main types of business models for oil palm cultivation in Indonesia: private large-scale plantations (private and state owned companies) and two types of smallholder models, nucleus estate smallholders and independent smallholders, as mentioned above. According to available data, in 1990, of 1.1 million ha of oil palm plantation, smallholder ownership constituted 25%, state-owned company 33% and private companies 41%. In 2010, around 50% of oil palm plantation was owned by private companies, 42% by smallholders, and only 8% was owned by state-owned companies.

## **Socio-economic and environmental implications**

The promise of biofuels and expansion plans for oil palm plantations has become the subject of a strong political and environmental debate in Indonesia with divided opinions. Some see palm oil as a commodity playing an important role in mitigating climate change, providing alternative sources of energy, and contributing to economic development and rural livelihoods (Basiron, 2007; World Growth, 2009, Basiron, 2010). Others are concerned about potentially serious unintended social, economic and environment impacts (Fitzherbert et al., 2008; ICTSD, 2008; Bringezu et al., 2009, Sheil et al., 2009).

The real picture is much complex. Oil palm development impacts depend largely on the companies' policy, the local government and the social organization of farmers and communities involved in their production. Most often, local communities are not opposed to oil palm development (Gaiser, 2009; Orth 2009; Rist et al., 2010; Therville et al., 2011), but are asking for fair share of profits and for keeping the ownership of what they consider as their land (Clerc, 2010; Feintrenie et al., 2010; Feintrenie and Levang, 2011). New investments are expected to underscore partnerships with local communities through outgrower schemes, but questions remain about their effectiveness (McCarthy, 2010).

With regard to oil palm expansion' environmental negative impacts, it has lead to significant deforestation and carbon emissions, since an important portion of this expansion has taken place in peatlands, thus contributing to carbon emissions (Murdiyarso et al., 2010). Current main concern is that oil palm expected expansion will target secondary forest zone which is exempt from the forest

conversion moratorium which Indonesia put into effect in mid-2011 to avoid peatlands conversion, as other land categories will likely become scarce (Boucher et al., 2011; Colchester and Chao, 2011).

## **Mechanisms supporting more sustainable oil palm production**

The Roundtable on Sustainable Palm Oil (RSPO) was established in 2004 and is led by representatives of the palm oil industry. It was funded in answer to the growing concern expressed by NGOs and the global society on the negative impacts of oil palm development on forests and people. The RSPO is a global, multi-stakeholder initiative on sustainable palm oil (RSPO, 2012). Members of RSPO and participants come from many different backgrounds, including plantation companies, manufacturers and retailers of palm oil products, environmental and social NGOs, all originating from countries producing or using palm oil. RSPO has created a certification scheme of sustainable palm oil production. In February 2012, more than 1,336,910 ha of oil palm were certified; 5,704,342 million tons of CPO and 1,324,981 million tons of CSPK were approved for certification (RSPO, 2012). Indonesia, in turn, has put in place its own systems of certification known as Indonesian Sustainable Palm Oil (ISPO). The effectiveness of this system is still under debate, but it is going to be imposed as mandatory to oil palm producers.

## **OBJECTIVES**

Main drivers affecting future forest conservation are related to increasing investments in oil palm production linked to the expansion of global demand for CPO. Participants will examine the underlying factors explaining oil palm development, and will gain better understanding on their main socio-economic and environmental impacts. There are many trade-offs between economic growth and forest removal linked to oil palm development which depend on different conditions such as land tenure, business models, market access and existing institutions where oil palm takes place. The visit to an oil palm plantation in Riau Province will shed light on the different dimensions of oil palm expansion.

Topics to be covered during this field visit will include:

- Legal and institutions frameworks governing oil palm business and development
- Land acquisition and production partnerships amongst large-scale plantations and smallholders
- Effectiveness of the Roundtable on Sustainable Palm Oil and corporate social responsibility
- On-the-ground realities for oil palm plantations and smallholders involved in oil palm production

The field visit will include the following activities:

- Face-to-face interactions with management team from Musim Mas Group
- Field visit to an oil palm plantation and to an oil palm processing center

## **ABOUT THE SITE**

### **PT MUSIM MAS GROUP D**

Musim Mas is one of Indonesia's most dynamic groups, with a diversified portfolio of products and assets. Its activities are centred on its core business of palm cultivation and palm oil processing. Musim Mas, which has its business origin in Nam Cheong Soap Factory, was established in 1972. Today, Musim Mas has rapidly expanded into a large fully integrated palm oil corporation, and it currently has a diversified portfolio of products. Musim Mas Group is a market leader in the manufacturing of palm oil, soap and margarine. It owns ships, tankers, a grain terminal and bulk tank terminals. The group ranks among the biggest Indonesian producers in the vegetable oil refining and soap manufacturing industries.

Musim Mas is the first Indonesian member of the Roundtable on Sustainable Palm Oil (RSPO), and has shown commitment to supporting and using the RSPO Principles and Criteria for Sustainable Palm Oil Production (RSPO P&C) as the basis of managing the enterprise sustainably. Musim Mas is putting in place practices to advance the adoption of the principles of sustainable agriculture and production. The company launched the Musim Mas initiative on management for sustainability in February, 2007. A phased implementation of sustainability has been rolled out throughout the enterprise. At present two palm oil mills and six estates in the Province of Riau with a total of 23,917 hectares have been certified by RSPO. PT Musim Mas is working towards a full certification of all its business units by 2014.

## Riau province

The province economic development benefited first from oil (fossil fuel) production (since 1919), and second from forest and agricultural products. The timber industry, based on natural forest exploitation, became the first economic resource of the province between the 1960s and 1990s. The decline of the resource induced the decline of the industry, conducting it to a conversion to pulp and paper that began in the 1980s (Singer, 2009). Natural rubber was the main cash crop in the beginning of the XXth century. The palm oil industry emerged in 1970s, brought by migrants from North Sumatra province. In the 1980s and 1990s, large companies began planting in Riau, in search either of diversification of revenue from the timber industry, or of new lands to expand their plantations. In 2006, Riau produced 4 million ton of CPO, staggering 25 % of the Indonesian oil palm productive plantations area, and ranking second in the province economic resources, after fossil fuel (Singer, 2009).

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