“SUSTAINABLE PALM OIL” DISCUSSION,
Organisers: Indonesia Synergy and PPIA ACT (ANU and UC)
Theme: “Can Indonesia develop and promote ‘sustainable palm oil’?”, Friday, 20 July 2012, 2.30-4.30pm, Seminar Room C, Coombs Building, The Australian National University

Key Presenter: Dr Fadhil Hasan (Executive Director of GAPKI/Indonesia Palm Oil Association) - “Economic challenges in realising sustainable palm oil”, (please see his presentation at http://indonesiasynergy.files.wordpress.com/2012/07/presentation-at-indonesiasynergy_canberra_fadhilhasan_gakpi_jul2012.pdf)

Discussants:
1. Fitrian Ardiansyah (Former Executive Board of RSPO/Roundtable on Sustainable Palm Oil & PhD Candidate at Crawford School of Public Policy, ANU) - "Environmental challenges of palm oil development"
2. Dr John McCarthy (Senior Lecturer at Crawford School, ANU) - "Social issues in palm oil development"
3. Denny Lesmana (First Secretary on Economic Affairs, Embassy of the Republic of Indonesia) - "Trade related issues of palm oil"

Moderator: Adi Budiarso (Teaching Fellow and PhD Candidate in Business and Administration, University of Canberra)

BACKGROUND NOTES FOR THE DISCUSSION: compiled and drafted by Fitrian Ardiansyah

DRAFT – NOT FOR QUOTATION –

“The Journey of Sustainable Palm Oil in Indonesia”

Palm Oil and its contribution to Indonesia’s economy

Over the last two decades, palm oil has emerged as one of the most significant contributors to Indonesia’s economy, topped only by oil, gas, and mineral products. Originating from West Africa, where it has long been used as a traditional source of food, medicines, and woven materials, oil palm (Elaeis guineensis) is the highest-yielding vegetable oil crop in the world, and has thus become an important agricultural commodity in many tropical countries.

Indonesia in 2009 surpassed Malaysia to become the biggest producer of palm oil in the world, with production accelerating dramatically in recent years. In 1967, Indonesia’s production of crude palm oil (CPO) was 105.9 thousand tons, which increased to reach 6.4 million tons in 1999 (DG of Estate Crops 2010). By 2010, production had soared to 19.8 million tons (DG of Estate Crops 2010). Similarly, Indonesia’s CPO exports and resultant revenues have increased significantly over the last several decades, from 3.8 million tons (valued at US$1 billion) in 1999 to 17.85 million tons in 2010 (US$10.03 billion) (Akyuwen & Sulistyanto 2010; DG of Estate Crops 2010; Index Mundi 2010; Kompas 31 January 2011).

Indonesia also possesses the largest area of land in oil palm plantations in the world, amounting to approximately 7.8 million hectares in 2010 (Directorate General of Estate Crops 2010). In the past, oil palm development was concentrated primarily on the island of Sumatra. Today, the palm oil sector has expanded to Kalimantan, Papua, and other islands. The market clearly drove this oil palm boom, prompted largely by the increase in food demand in Indonesia, India and China as well as the plan to expand biofuel markets in Europe (Fitzherbert et al. 2008). The increase in this demand was reflected by the sharp increase in the price of the
commodity. For instance, the price of crude palm oil increased 88 percent from US$570 per ton at the beginning of 2007 to over US$1440 per ton in early March 2008 (McCarthy and Zen 2010).

Figure 1 below describes Indonesia’s exports revenue coming from palm oil products compared with revenue from forest products.

Figure 1: Indonesia’s exports revenue from forest and palm oil products. Source: Index mundi (2011); ITTO (2011)

Environmental and social issues of oil palm development in Indonesia

Rapid expansion of oil palm plantations, however, has been accused to lead to the conversion of a significant area of forests and peat lands. Wilcove and Koh (2010) argue that oil palm is the greatest immediate threat to biodiversity and forests in Southeast Asia. Fitzherbert et al. (2008) explain that oil palm expansion could in principle contribute to deforestation in four indistinguishable ways: (i) as primary motive for clearance of intact forests; (ii) by replacing forests previously degraded by logging or fire; (iii) as part of combined economic enterprise, such as timber, plywood or paper pulp profits used to offset the costs of plantation establishment; or (iv) indirectly, through generating improved road access to previously inaccessible forest or displacing other crops into forests. In their analysis conducted for Indonesia, Koh and Wilcove (2008) estimated that the forest area converted to oil palm plantations was 1.7 million hectares between 1990 and 2005. This means over 56 percent of oil palm expansion occurred at the expense of natural forest cover in that period (Koh and Wilcove 2008). An earlier study suggested that 70 percent of Indonesia’s oil palm plantations replaced forests between the period 1982 to 1999 alone (Casson et al. 2007). Another study conducted by Wicke et al. (2008) estimated that palm oil development was responsible for 11 percent of deforestation in Indonesia during the period of 1978-2003. Over the last several years of this study, from 1997-2003, the percentage of deforestation caused by palm oil grew to 27% of the total in Indonesia; during which time forest cover decreased by 9.7 million hectares, of which 2.6 million hectares was converted to palm oil (Wicke et al. 2008). In addition, according to Ritter (2009), between 1985 and 2005, roughly a third of Borneo’s rainforest disappeared, felled by indiscriminate logging or cleared for oil palm plantations.

In their analysis, Koh and Wilcove (2008) assessed that between 1990 and 2005, oil palm-cultivated area in Indonesia increased by 3 million hectares.

Indonesia Synergy – “Sustainable Palm Oil” Discussion (Background Notes for Discussion)
An analysis conducted by Sekala on 2006 forest cover data of the Ministry of Forestry (MoF) combined with data from the offices of forestry and estate crops at district level for estate crops (predominantly oil palm) in Sumatra, Kalimantan and Papua, shows that around 2.25 million hectares of primary and secondary forests were utilised for estate crops. This analysis can be seen in Figure 1. Using a similar approach but using land use categories, Figure 2 reveals the origins of estate crops. In this figure, it is clear that there was 45% (3.73 million hectares) of estate crops which originated from forests.

In terms of peat land, Hooijer et al. (2006) state that of the 10.3 million hectares of land allocated to palm oil concessions, 2.8 million (~27%) are located on peat land. As mentioned in sub-section 3.2, in Sumatra and Borneo between 1990 and 2009, nearly half of peat swamp forests had been converted to other land cover types, primarily to industrial plantations (i.e. oil palm and pulp wood) (Miettinen and Liew 2010). According to the National Development Planning Agency (Bappenas 2009), as of 2006, plantation licenses (i.e. predominantly oil palm) on peat lands totalled 1.3 million hectares. In its report, Bappenas (2009) further revealed that over 0.16 million hectares of peat lands allocated for oil palm development was believed to be more than three metres deep, which is supposed to be protected by law.

Another indirect but significant environmental impact of forest conversion to oil palm plantations is forest and land fires. Forest fires to clear land for plantations are a regular source of haze in Southeast Asia, posing serious health problems, traffic disturbance and substantial economic costs. In the period of 1997 to 2006, the highest occurrence of hotspots is in 1997 (107,255), reflecting massive fires in the year. In 2006, the second highest hotspots after 1997 is recorded (104,563), which shows the gradual increase of forest and land fires since 2001 (Hariri and Ardiansyah 2007). In August 2005 in Riau province shows that out of 5,420 hotspots, 922 were identified – again in land with peat soil (Ardiansyah 2008). Peat soil is easily burned, produces more haze, smoke, and carbon emission compared to other soil types. Recently, UKP4 (The President’s Delivery Unit for Development Monitoring and Oversight) requested the withdrawal of land use permits issued for a palm oil company covering 1,605 ha in Tripa Peat Swamp, Aceh due to the evidence of forest and peat land clearing as well as fires (Kompas 2012). This request has been addressed during the previous UKP4’s meeting with the Head of Aceh Police and the Governor of Aceh (Kompas 2012).

Figure 2: Forest (hectares) utilised for estate crops (mainly for oil palm) based on forest classification.
Figure 3: Land (hectares) utilised for estate crops (mainly for oil palm) based on land use categories.

Source: Sekala’s analysis for estate crops (2010). Notes: The calculation for Figure 1 and 2 is based on data of estate crops the offices of forestry and estate crops at the district level and the MoF’s map of Indonesia’s forest cover in 2006. These analyses for these two Figures appear to support other studies which suggest that estate crops (i.e. oil palm) contribute to deforestation. Oil palm can be argued to be developed significantly from forests.

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Sekala is an Indonesian institution, in collaboration with the Indonesian Community Mapping Network (JKPP) and the World Resources Institute, works in developing capacity for independent monitoring, verification and reporting on land cover change and greenhouse gas emissions in Indonesia. Please see the following link for further information: http://forestclimatecenter.org/index.php?cnt=International&lang=English.
With regard to social issues, the 2010 World Bank report argues that oil palm expansion can yield positive socio-economic benefits to local people through employment opportunities, improved infrastructure, increases in land value, and income from cultivating oil palm (World Bank 2010). Oil palm expansion also yields indirect or national level poverty alleviation benefits through government allocation of tax revenues and increased monetary stability through foreign exchange earnings. The followings are some social benefits from palm oil development as reported by the World Bank (2010) and Sheil et al. (2009):

- **The net employment impact of oil palm depends on the employment intensity of the plantation as well as the land uses that are being replaced.** Rural employment generation is often cited as a benefit of oil palm cultivation and is one of the chief drivers behind public support for the sector. Unemployment is a pressing development issue in Indonesia, which had 9.5 million people, or 8.5 percent of its labor force, unemployed in 2008. In 2002, an average oil palm plantation employed around 1 person for every 3 hectares of oil palm in Indonesia, whereas in Malaysia the ratio was 1 person per 12 hectares. This large difference in employment intensity is likely due to differences in scale and mode of production, with large private estates employing fewer people per hectare. The Ministry of Agriculture estimates that for smallholder plantations 1 person is employed for every 2 hectares. In comparison, one of Indonesia’s large estate companies, PT SMART, employed one person for every 6.7 ha in 2007.

- **The palm oil sector is an important source of jobs in many rural areas, but critics point to the need for improving working conditions.** Most of the work is at the plantation level, and plantations mainly require unskilled agricultural labor. Workers in the nucleus are generally paid the provincial minimum wage, sometimes with additional piece rate incentives (GAPKI pers. comm.). Many companies reportedly provide better labor conditions and opportunities than are found in surrounding areas, but some reports by NGOs claim that poor working conditions are common. Critics of the industry point out that the minimum wage often does not cover the basic living needs (Kebutuhan Hidup Layak) standard calculated by the government. Also, some companies reportedly may pay workers less than the minimum wage, which in some cases leads to labor disputes. Of particular concern is the use of casual laborers on plantations, as these are often underpaid and have less recourse to legal protection than full-time employees. Industry representatives claim that reports of poor working conditions are overstated. Survey data would be necessary to determine the extent of poor labor conditions.

- **The positive impacts on local livelihood:** In Sumatra, a company distributed three cattle to each of its 500 employee families. The cattle were allowed to graze on plantations, fed on oil palm waste, used for breeding, and for transporting oil palm fruit. The cattle population doubled, harvested areas increased, incomes of workers increased and community relations excelled.

There are, however, also potential negative impacts, including loss of access to land without adequate compensation, loss of the benefits of mixed livelihood strategies, and loss of environmental services from natural forests (e.g., water, game, medicinal plants) when these are replaced by plantations (World Bank 2010). The followings are some social problems in oil palm development as reported by the World Bank (2010) and Sheil et al. (2009):

- **Problems often arise in connection with land acquisition, and the recognition of local people’s rights to land during the establishment of industrial estates.** A significant portion of Indonesia’s oil palm area consists of industrial estates and these generally consist of large contiguous areas. Especially during the Suharto era, plantations were sometimes imposed on local people in the name of national development, leading to displacement of rural communities and loss of livelihoods. While political reforms have led to a stronger civil society movement and increased recognition of local land rights, conflict between communities and oil palm companies are still widespread and tend to be centered on the issue of land and compensation. Accounts of abuses against local people by oil palm companies are common.

- **A large number of rural poor depend on forests for a wide range of goods and services, and the conversion of forests may have adverse impacts on their livelihoods and culture.** Economies of scale in mills and the need to process fruits soon after harvest, require mills to have access to sizeable tracts of land that are likely to be monocropped, depriving local people of the benefits derived from mixed livelihood strategies. When forests are replaced with palm plantations, communities lose access to timber for construction, rattan, and jungle rubber gardens.

- **There are serious concerns about the impacts of oil palm expansion on indigenous populations.** Many of Indonesia’s indigenous people practice shifting cultivation and companies generally prefer hiring workers with backgrounds in sedentary agriculture. This can lead to ethnic conflict between newcomers and...
indigenous groups. Swidden farmers may be particularly disadvantaged by the spread of oil palm, as their traditional claims on land are often not formally recognized.

The biggest task for key actors in the palm oil sector is to deal with these challenges and find options for sustainability. Working together with other actors, the industry has the opportunity to improve both their practices and images. If not, these negative environmental and social impacts of the palm oil industry will burden the progress of the industry itself and greater society.

The path to sustainability

In Indonesia, the existence of the previous mentioned problems have been acknowledged by key actors in the palm oil sector. The Executive Director of the Plantation Research Institution, Dr Didik Hajar Gunadi, for instance, has recognised that the political situation in Indonesia has allowed the commodity to be developed widely without adequate safeguards: “Economically, socially, environmentally, and perhaps politically the country has been affected by the unbelievable booming of this so-called liquid gold commodity … It is indeed not an easy task for the government to make appropriate allocation of land which potentially demands significant trade-offs on livelihoods and on the environments” (Gunadi 2008).

Some palm oil producers have been active in seeking possible solutions, such as through the development of standards and best practices within the Roundtable on Sustainable Palm Oil. In 2001, WWF commenced exploring the possibilities for a Roundtable on Sustainable Palm Oil. The result was an informal co-operation among Aarhus United UK Ltd, Golden Hope Plantations Berhad, Migros, Malaysian Palm Oil Association, Sainsbury’s and Unilever together with WWF in 2002. The inaugural meeting of the Roundtable took place in Kuala Lumpur, Malaysia on 21 - 22 August 2003 and was attended by 200 participants from 16 countries. The key output from this meeting was the adoption of the Statement of Intent (SOI) which is a non-legally binding expression of support for the Roundtable process. As of 31 August 2004, forty seven organisations have signed the SOI. On 8 April 2004, the “Roundtable on Sustainable Palm Oil (RSPO),” was formally established under Article 60 of the Swiss Civil Code with a governance structure that ensures fair representation of all stakeholders throughout the entire supply chain. The seat of the association is in Zürich, Switzerland, the Secretariat is based in Kuala Lumpur with a RSPO Liaison office in Jakarta.

GAPKI (Indonesia Palm Oil Association) had been active since the beginning of RSPO’s development and played a crucial role in getting many Indonesian producers to be part of this newly established organisation. There are currently 98 members of RSPO coming from Indonesia. While RSPO certification is progressing (see Box 1 below), the Ministry of Agriculture in Indonesia has formalised its own standard, i.e. ISPO (Indonesian Sustainable Palm Oil), that aims at shaping the industry towards sustainability on a mandatory basis. The debate, discussion and development on RSPO vis a vis ISPO has been perceived as key in defining the future of Indonesia’s actions towards sustainable palm oil.

Box 1: Milestones of RSPO (source: http://www.rspo.org)

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<th>Date</th>
<th>Event Description</th>
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<tr>
<td>August 2003</td>
<td>First Roundtable Meeting (RT) took place in Kuala Lumpur, Malaysia and was attended by 200 participants from 16 countries.</td>
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<td>8 April 2004</td>
<td>RSPO was formerly established under Article 60 of the Swiss Civil Code.</td>
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<tr>
<td>August 2004</td>
<td>47 organizations signed a Statement of Intent declaring their intention to participate in the RSPO Initiative.</td>
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<td>November 2005</td>
<td>The RSPO Principles and Criteria (P&amp;C) were adopted for an initial pilot implementation period of two years by 14 companies.</td>
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<td>2006</td>
<td>Creation and adoption of Members’ Code of Conduct; RSPO Indonesian Liaison Office (RILO) established in Jakarta.</td>
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<tr>
<td>October 2007</td>
<td>The RSPO Principles and Criteria (P&amp;C) were reviewed by the RSPO Criteria</td>
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Another critical aspect to ensure the development of sustainable palm oil is the continuous work in achieving an agreed land use plan. A large number of areas utilised or planned to be utilised by the palm oil sectors is located on land that was previously part of the forest estates. Hence, reducing the amount of forested land allocated to palm oil will reduce the conversion of forests and peat lands. However it should be noted that not all land within the forest estates is actually forested: vegetation cover ranges from pristine forest to barren land (World Bank 2010). Under law, only highly degraded areas are meant to be eligible for excision from the forest estate (World Bank 2010). Therefore, identifying and allocating land that is available and feasible for development by the palm oil sector has become an urgent action. Bappenas (2009) suggests that there are three steps so that this can be achieved: (i) reclassification of forests in non-forestry development estates (Area Penggunaan Lain or APL) to protection or conservation zone (revision of spatial plans); (ii) reclassification

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<td>November 2007</td>
<td>Working Group (CWG). The review included public consultations; meetings; soliciting of public comments; inputs from national interpretations; smallholder taskforce deliberations and pilot field trial results.</td>
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<td>2008</td>
<td>RSPO Certification System was approved by the RSPO Executive Board and adopted by General Assembly (GA4) and officially launched at RT5 (the 5th Roundtable Meeting on Sustainable Palm Oil) by the then Hon. Minister of Plantations Industries &amp; Commodities, Malaysia, Datuk Peter Chin Fah Kui in Malaysia.</td>
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<tr>
<td>21 August 2008</td>
<td>National Interpretations (NIs) of the generic Principles &amp; Criteria for Indonesia, Malaysia and PNG approved.</td>
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<tr>
<td>August 2008 - November 2009</td>
<td>The RSPO Supply Chain Certification Systems was developed and finalized.</td>
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<tr>
<td>October 2010</td>
<td>The RSPO Supply Chain Certification Systems was reviewed and adopted.</td>
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<td>2010</td>
<td>RSPO membership reached 500 Ordinary Members from around the world.</td>
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<td>June 2011</td>
<td>First RSPO certificate was issued to Latin America, Daabon Group, Colombia</td>
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<td>25 August 2011</td>
<td>Launch of the RSPO Trademark</td>
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<td>25 August 2011</td>
<td>3 years since the certification of sustainable palm oil, the industry reaches a turning point by hitting its first 1 million hectares of certified production area around the world.</td>
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<td>25 August 2011</td>
<td>The inaugural certification of sustainable palm oil in Brazil by Agropalma.</td>
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<td>22 November 2011</td>
<td>The global production of CSPO reaches 5 million tonnes, 10 percent of global palm oil production.</td>
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<td>22 November 2011</td>
<td>A record achievement of over 1000 attendees at RT9 from over 20 countries.</td>
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<td>8 March 2012</td>
<td>Launch of the inaugural 2011 RSPO CSPO Growth Interpretation Narrative (GIN)</td>
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<td>19 March 2012</td>
<td>Achieved 6 million metric tonnes of CSPO in annual production capacity</td>
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<td>16 July 2012</td>
<td>Carrefour Indonesia and PT Musim Mas launched the nation’s first RSPO certified cooking oil priced at Rp 23,000 (US$2.46) per 1.8-liter container</td>
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Indonesia Synergy – “Sustainable Palm Oil” Discussion (Background Notes for Discussion)
of remaining forests and peat lands which are not yet licensed to protection or conservation (no new licenses on peat and a revision of spatial plans); and (iii) relocate licenses or parts of licenses where companies have not yet initiated operations on the ground, from forests and peat lands to mineral soils (land swapping using barren or degraded lands).

According to Verchot et al. (2010), Indonesia has plans for significant expansion (around 35-40 million hectares or 16 percent of the national territory) for food production, oil palm plantations, and timber and pulp wood plantations. If the country aims to achieve emissions reductions while also expanding these economic activities, then opportunities such as development on degraded, non-forested and/or non-peat lands, must be utilised. A number of studies point to the potential for developing non-forested or highly degraded areas (World Bank 2010). According to national statistics, large tracts of land are classified as being deforested or in critical state, as official statistics recognise that at least 40 million hectares of forest estates is not forested (World Bank 2010). The Ministry of Forestry publishes figures for land areas considered to be ‘critical’ (lahan kritis)³, and in 2006, the total area identified as critical land was 77.8 million hectares, of which 47.6 million hectares was deemed to be ‘very critical’. There are also grasslands⁴ which represent an opportunity for reclamation into productive plantation areas, estimated to cover up to 20 million hectares (World Bank 2010).

Another means to develop these sectors without sacrificing forests and releasing significant emissions is to increase productivity of existing land uses. For example, in Indonesia, palm oil yields of smallholders tend to only produce an average of 2.3 tonnes per hectare, while private estates can produce 3.4 to eight tonnes per hectare. Poor smallholder yields are attributed to difficulties in obtaining good quality seedlings, inadequate plantation management practices and lack of sufficient capital to purchase fertilizers, pesticides and herbicides. Improving productivity would reduce the need for land area expansion. Estimates show that growth in demand could be met by improving yields on existing plantations by 1.5-2.0 percent per year (Unilever 2007). This intervention could potentially reduce the need to convert forests and peat lands to oil palm and is a strategy that could be replicated for other sectors.

To support the above options and proposed concepts, financial and legal incentives, need to be introduced (Verchot et al. 2010). Financial incentives are needed to support the implementation of the overall proposed steps and concepts while legal incentives may be strongly needed to support the development of degraded land, non-forest and non-peat lands, particularly through land swaps.

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³ The assessment of critical land is based on the level of degradation and the decrease of ecological functions, including land cover, crown density, slope, erosion and land management (World Bank 2010).

⁴ Grasslands are lands covered predominantly by perennial coarse grass that could grow up to 2 meters high, thrives on poor soils and invades abandoned land, especially after fire, which plays an important role in the formation and persistence of alang-alang (World Bank 2010).


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