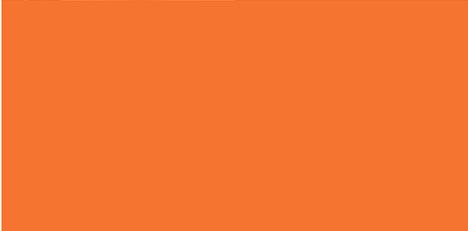


Sustainability Policy

Progress Report

January 2016 - November 2016



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Introduction



If 2016 had a theme, it would be a year of intensifying our insight into our supply base and getting clarity on the steps to achieve sustainability transformation.

We have been working very closely with different parties. Firstly, we are working with the CORE consortium on verifying our supplying mills, engaging the supplying groups and devising strategies for multi-stakeholder landscape work. Secondly, we are receiving support from Aidenvironment on mapping the supply sheds and highlighting risk on new developments of the supply groups and finally, we are working with our peers via The Forest Trust (TFT) on mapping out the supply shed of the Leuser Ecosystem.

2016 was also the year in which we needed to report on our status of achieving full traceability to plantations. Our target deadline of full traceability by 2016 - an ambitious goal by industry standards - inspired motivation, developed resources and provided a new perspective on practical steps. How can we innovate to speed up the transformation agenda?

“How can we innovate to speed up the transformation agenda?”

Our view on transformation is when governments, private sector players and civil society groups can come together to achieve the best outcome by focusing on place-based development, i.e. the landscape approach. It is a process whereby we can break down sectorial barriers as well as capitalise on synergies in land use and human development. With the complexities of land use planning in which commercial crops, food crops and conservation are important elements, we need more learning and negotiation among stakeholders and deliberate efforts to reduce trade-offs. The landscape approach offers a good pathway to implement our No-Deforestation, No-Peat and No-Exploitation (NDPE) policy on the ground.

The implementation of a transformative process will involve:

- Encouraging small to mid-sized companies to embark on sustainable practices by engaging at the highest level of the corporate hierarchy: the decision-makers of the parent companies;
- Improving the oil yields and agricultural practices of independent smallholders;
- Involving the regional governments to provide a framework for good governance as a legal requirement for palm oil;
- Engaging all stakeholders including peers and buyers in the industry to work towards transformation in a similar manner and find common ground.

We have prioritised regencies for engagement on the landscape approach. These regencies are in the top six provinces that contribute to 83% of our CPO supply needs and include areas recognised by stakeholders as the areas that need intervention. Some of these regencies are near sensitive landscapes such as the Leuser Ecosystem and the Tesso Nilo National Park. Other regencies have an existing multi-stakeholder initiative and an engaged government. We are actively seeking and negotiating multi-stakeholder initiatives to provide a solution from ground-up.

We have reviewed our perspective on traceability and here is our enhanced approach: traceability to mills and their associated plantations (controlled by the mills) and independent plantations and smallholders, collectively termed as a “supply shed”, instead of the general term of “plantation.”

We view our supply base as a mix of known and unknown sources. The known sources are the third-party mills with their directly managed plantations (associated plantations). These mills are usually part of a larger network of large to mid-sized plantation groups. The unknown sources are made up of independent plantations and smallholders who supply to different mills. Together, the known and unknown sources make up a supply shed.

As at November 2016, we can determine 99% of our supply base of Crude Palm Oil (CPO) and Palm Kernel (PK) to the mill level. We can trace 48% of our supply base of CPO and PK to the plantation level. To put it in another way, 48% of our supply base is made up of large and mid-sized plantation groups. This analysis also means that we can trace 48% of our supply base to decision-makers, i.e. the most senior executives or owners who have management control over these plantation groups. Knowing the decision-makers behind such groups is key to the transformation agenda. As the top-down approach is the most pragmatic pathway to encourage change on the ground, traceability to decision-makers can provide the trigger to start engagement.

The remaining 52% of our supply base consists of independent plantations and smallholders which are grouped as “unknown sources”. Given that 40% of the Indonesia supply base is made up of smallholders, we estimate that the remaining 10-12% of the Indonesia supply base consists of small to mid-sized plantations that have no accompanying mills. For 2017, our focus is on the supply shed in the landscape. We will map the supply sheds with the help of high-resolution satellite imagery. Additionally, the decision-makers behind the large and mid-sized companies can provide information and access to the independent plantations and independent smallholders in their landscapes.

As many stakeholders have realised, while there are players such as Musim Mas with NDPE (No Deforestation, No Peat and No Exploitation) policies, the industry is built on the foundation of small and mid-sized companies and millions of independent smallholders. The reality is that despite our best intention and efforts, getting the support of the decision-makers behind these large and mid-sized companies is crucial. The concept of “traceability to decision-makers” will be further explained in one of the chapters of our report.

In the meantime, we are working from ground-up by devising innovative ways to support the independent smallholders supplying to our third-party mills. If we can enhance the oil yield of the independent smallholders and the quality of the crop, the process will strengthen the trust and cooperation between our Group and our supplying parent groups (who control the network of third-party mills to our facilities).

With our experience gained from organising independent smallholders (Musim Mas-IFC project), we will expand our work to the independent smallholders of our third-party mills. We are designing a programme known as the Musim Mas Extension Services Programme (ESP) to support these independent smallholders.

We are also pleased to launch our grievance mechanism which will be further refined during a trial period with the help of Aidenvironment.



Overall policy implementation

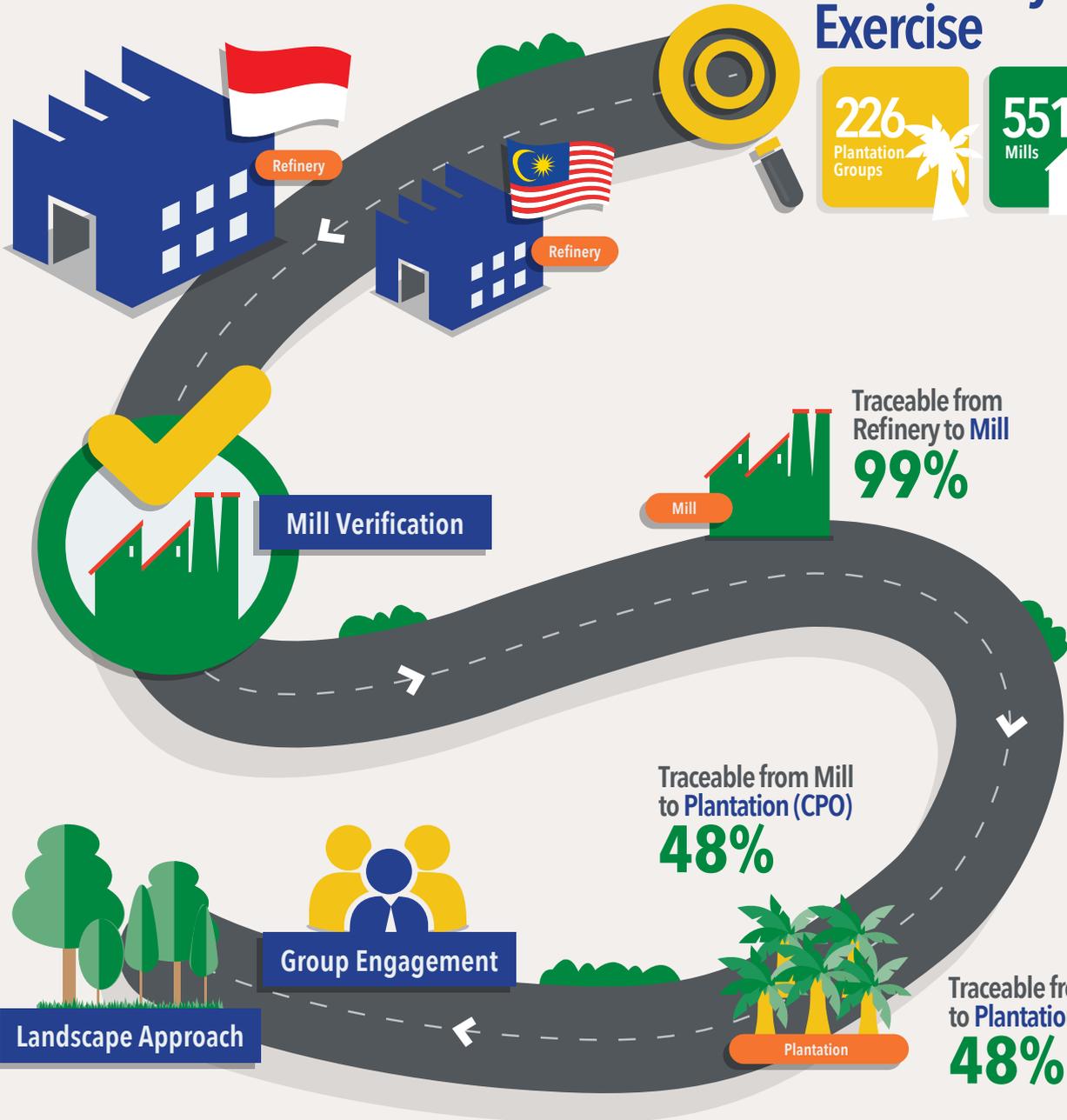
Sustainability Commitment		Musim Mas operations	Third-party mills
No Deforestation	<ul style="list-style-type: none"> No Deforestation of High Conservation Value (HCV) and High Carbon Stock (HCS) forests. 	<ul style="list-style-type: none"> Participated in the HCS Convergence working group. Conducted an independent third-party HCS assessment on our concession. 	<ul style="list-style-type: none"> We have actively engaged our suppliers on our policy via workshops and mill verifications. Most importantly, we have engaged our third-party suppliers in dialogue over compliance with our purchasing policy. We view the landscape approach via a multi-stakeholder initiative as the best pathway to ensure our suppliers' adherence to our policy.
No Peat	<ul style="list-style-type: none"> No development on peatland regardless of depth. 	<ul style="list-style-type: none"> Conducted internal assessment on possible critical peatland areas which are identified as part of the Indonesian government agency, Peat Restoration Agency's targeted peatlands. 	
No Exploitation	<ul style="list-style-type: none"> Bring benefits to the community by respecting human rights of the indigenous and local communities. Respect the rights of all contract, temporary and migrants of all genders. Respect and include smallholders. 	<ul style="list-style-type: none"> Launched our grievance mechanism for either the Musim Mas Group and its subsidiaries' operations or third-party suppliers. Conducted an independent verification of our labour conditions. We are working with IFC on a pilot programme to support independent smallholders. We are also working to support our neighbouring villages with the Fire Free Community programme. 	<ul style="list-style-type: none"> We are preparing a diagnostic report on the Riau Province. The study provides a roadmap to implement our landscape approach on the ground. We have also drawn up a list of priority regencies where we will seek an active multi-stakeholder intervention.
Traceable Supply Chains	<ul style="list-style-type: none"> Establish traceable supply chains. Provide information on traceability to plantations by 2016. 	<ul style="list-style-type: none"> For our plantations with mills, these supply bases are 100% RSPO-certified segregated. We have four standalone mills that source from independent smallholders and independent plantations. We are working with IFC to map out the supply base. 	<ul style="list-style-type: none"> We are 99%* traceable to mills and 48% traceable to plantations.

*Our refineries in Malaysia and India are 76% and 92% traceable to the mills respectively. See pages 17-19 for more information.

Traceability Exercise

226
Plantation
Groups

551
Mills



Traceable from Refinery to Mill
99%

Traceable from Mill to Plantation (CPO)
48%

Traceable from Mill to Plantation (PK)
48%

Progress Review for 2016

Supply base	Traceability achievement	Adjusted commitment
Overall (sum of Musim Mas and third-party mills)		
Refineries	100%	Ensure all inter-refinery trade is mapped and monitored.
CPO mills	99%	Ensure the supplier list on our corporate website is regularly updated.
Plantations (associated with the mills)	48%	Continue effort to achieve 100% traceability to supply shed with the help from satellite imagery providers. We define a supply shed as being made up of mills and their associated plantations, as well as their independent plantations and smallholders. The different supply sheds make up a landscape.
Independent smallholders	In progress	Work with satellite imagery providers to map the independent smallholders, in collaboration with other stakeholders in the industry.
Independent plantations (corporate suppliers with tied smallholders)	In progress	Work with satellite imagery providers to map the independent plantations, in collaboration with other stakeholders in the industry.

Musim Mas	Traceability Indicators	Notes
CPO mills (RSPO-certified mills with associated plantations)	100%	Traceability from refineries to CPO mills. This data refers to traceability for our refineries that handle CPO (Crude Palm Oil) and PK (Palm Kernel) products. The data excludes non-certified mills that do not have associated plantations.
Plantations (associated with the mills)	100%	Traceability from mills to plantations. These are our RSPO-certified mills that are tied to the certified plantation base.
Smallholders (scheme)	100%	Traceability from mills to plantations. These are our RSPO-certified scheme smallholders.
Independent smallholders	12.5%	This percentage refers the total production of our four Group mills that receive their FFB (Fresh Fruit Bunches) from independent smallholders. These four mills are either not RSPO-certified or not RSPO-certified segregated, as they do not have an accompanying plantation. The data is derived from the amount of traceable CPO (traceable to independent smallholders) divided by the total amount of CPO processed by these four mills.

Third-Party Mills	Traceability Indicators	Notes
CPO mills	99%*	Traceability from refineries to mills. This data shows the % of mills that are traceable to our refineries.
Plantations (associated plantations and scheme smallholders)	48%	Traceability from mills to plantations. This data indicates the % of our supply base that is made up of mills with associated plantations belonging to parent groups.
Independent plantations (corporate suppliers with tied smallholders)	In progress	Traceability from mills to plantations. This data shows the % of our supply base that is made up of independent plantations with no mills.
Independent smallholders	In progress	Traceability from mills to independent smallholders. This data shows the % of our supply base that is made up of independent smallholders.

Note: 100% for all our facilities in Indonesia except our refineries in India and Malaysia (92% and 76% respectively). See pages 17-19 for more information.

No Deforestation



HCS assessment for our concession

The first version of the HCS toolkit was launched in March 2015 and was developed by members of the HCS Steering Group, a group of leading plantation companies with commitments to eliminate deforestation, Non-Governmental Organisations (NGOs) and technical support organisations. We are committed to the methodology developed by the HCS Steering Group - the High Carbon Stock Approach (HCSA) as the industry standard for forest protection.

“We are contributing our study on our leases in Papua as part of our commitment to HCSA.”

As a member of the HCS Group, we are active in the high forested landscape panel. We are contributing our study on our leases in Papua as part of our commitment to HCSA.

Furthermore, we have commissioned a third-party HCS assessment for one of our concessions.

High Carbon Stock (HCS) Convergence Working Group

Following a year of intensive work, the HCS Convergence Working Group announced that they had reached agreement on the convergence between the HCSA and HCS+ approaches. The Group has agreed on a single, coherent set of principles for implementation of companies’ commitments to “no deforestation” in their palm oil operations and supply chains. The members of the Group worked together constructively to develop recommendations that provide a roadmap forward.

For more information, please refer to the news release on the HCS Convergence Working Group [here](#).

No Peat



Peatlands assessment

The Indonesia Peatland Restoration Agency, also known as *Badan Restorasi Gambut* (BRG), was set up in January 2016 based on Presidential Regulation Number 1 of 2016. It is tasked with preventing forest fires that particularly occur in peatlands. BRG has since mapped the critical peatlands in the provinces of Riau, Sumatra, Kalimantan and Papua.

We are conducting internal assessments on the peatland areas in and around our concessions. Musim Mas does not allow new development on peat, regardless of depth. Going forward, we will follow BRG's instructions and policies on peat.

No Exploitation



Grievance mechanism

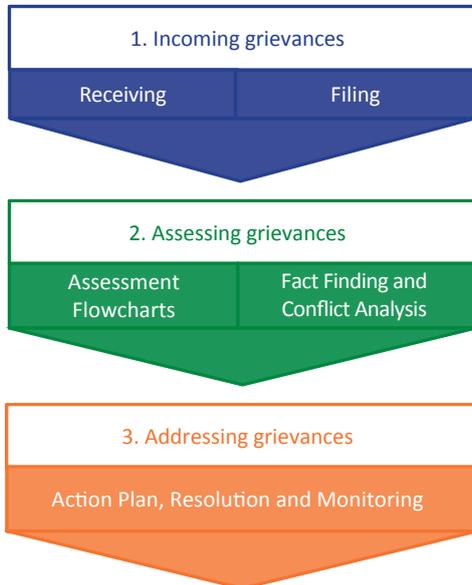
As part of our Sustainability Policy published in December 2014 followed by the implementation of our commitments, we undertook to establish a transparent and accountable grievance system as a platform for stakeholders to raise issues in our supply chain. We improved our existing grievance procedures and launched our new mechanism. Our improved grievance mechanism will provide a systematic and fair approach in the treatment of grievances from the point of receiving the complaints.

The grievances which are directed at either the Musim Mas Group and its subsidiaries' operations or third-party suppliers will be sorted into two broad categories of 'Compliance Grievance' or



'Dispute Grievance'. Compliance grievances involve an alleged breach of our sustainability policy, RSPO Principles and Criteria and the Palm Oil Innovation Group (POIG) charter. Dispute Grievance involves conflicts or disagreements between two or more parties.

Step-wise Approach for Handling Grievance



Our basis for handling a grievance hinges on a step-wise approach of receiving and filing of the incoming complaint, followed by an assessment of the complaint that is guided by systematic processes laid out for the different categories of grievances, and complemented by fact-finding and analysis of the grievance. The third step involves the actual addressing of the grievance through an action plan, resolution and monitoring programme.

For the ease of allowing complainants to lodge their grievances anonymously and from the convenience of their locations, we have published a form on our website for stakeholders to provide information on their complaints. At the same time, we recognise that some stakeholders, especially important groups such as local communities residing in surrounding areas where we operate, may require alternative avenues of lodging their grievances. Hence, we also provide other platforms such as via SMS or via letter writing. In addition to these platforms being conveyed on our website, the availability of these complaints channels will also be communicated on signages erected at our plantations and mills.

The implementation of the grievance mechanism is done in partnership with Aidenvironment, who will assist with receiving and assessing grievances and assist in further enhancement of our grievance handling for the first six months while we build up our internal capacity. We remain the key party who will be addressing the grievances through action, resolution and monitoring. We will also look at possible independent mediators for supporting communities or other stakeholders in the grievance resolution process.

For more information, please refer to our corporate website for the [grievance mechanism](#).

Third-party supplier grievance list

We have a list of 5 grievance cases involving 19 organisations for 2016, listed on our corporate website. As a case study of how we engaged the management of our supplier groups, please refer to our engagement with the Korindo Group [here](#).

Labour rights

With globalisation and the increased cross-border flow of people, countries are increasingly looking to international labour standards such as the International Labour Organisation (ILO) as a benchmark to safeguard the interests of migrant workers. Moreover, the substantial increase in the interest of policymakers on farmworkers' standards has also placed spotlight on labour rights and risk in the palm oil industry. As part of the membership application for the Palm Oil Innovation Group (POIG), we have been actively working on and contributing to innovations related to labour practices within the wider palm oil industry and specifically Indonesia.

We are working with members of the POIG on innovations to improve on the sector's guidelines and demonstrate as a frontrunner, the possible solutions to improve sectoral issues. As a member of POIG, we went through an initial POIG social compliance assessment from 24 August to 1

September 2016 by labour non-profit organisation Verite, aiming to identify the issues related to compliance with the POIG Charter, RSPO Principles and Criteria, Verite Best Practice Standards, ILO and other international norms on worker protection.

POIG has since published a new publication on labour rights that includes a case study on Musim Mas' assessment. We also recognise that responsible labour practices need to be extended to our third-party supply chain. The process will require collaboration and engagement within the sector to address concerns. By extending the work and innovations of POIG, we will work together with other players to improve the performance of the sector.

For more information, please refer to POIG's [website](#). The publication can be downloaded [here](#).



Independent smallholders

The chief domestic concern is the perception that NDPE policies might exclude smallholders from the supply chain, due to suspension policies. With the mixing of smallholders' oil into the Indonesian supply base, the smallholder dilemma that comes with NDPE policies is complex. Together with the International Finance Corporation (IFC), a member of World Bank Group, we are pleased to announce that our joint project is on track to achieve the project's vision of benefiting 3,000 farmers by 2018. We can replicate a successful joint project to other groups of independent smallholders in another province.

“With the successful implementation of the first Musim Mas-IFC project, both parties will roll out a similar project structure to our three other mills that source from many independent smallholders too.”

With the successful implementation of the first Musim Mas-IFC project, both parties will roll out a similar project structure to our three other mills that source from many independent smallholders too. These three mills are in Riau province and are estimated to benefit an additional 9,000 independent smallholders, bringing the total number of beneficiaries of the Musim Mas-IFC joint project to 12,000 smallholders.

The MM-IFC's advisory project, Indonesian Palm Oil Development for Smallholders in Rantau Prapat, North Sumatra, Indonesia started in June last year. More than 1,900 independent smallholders have been benefiting from the project including high-quality training of Good Agricultural Practices, since the project's inception more than 17 months ago.

For more information, please refer to our corporate website [here](#).



Fire Free Community

Currently, there are 86 villages under our Fire Free Community programme, covering a total of more than 500,000 ha. These villages are mapped based on a 300-m distance away from the Group's concession boundary. We have engaged more than 2,000 villagers for our Fire Free Community Programme and are planning to reach out to more people in these neighbouring villages. We will conduct socialisation programmes frequently for these villages.

This initiative is also part of our commitment to the [Fire Free Alliance](#), a group of leading forestry and agricultural companies and other partners via a voluntary, multi-stakeholder platform to aid in the solution to land and forest fires in Indonesia.

Traceable Supply Chains



With input from our consultant Aidenvironment, we identified 48% of the plantations directly owned or managed by our third-party mills. We estimate that the rest of the 52% of our supply base consists of non-associated plantations (plantation without a mill) and independent smallholders. The broad industry consensus is that 40% of the Indonesian palm oil supply base is estimated to be from independent smallholders.

Currently, we do not have the data for the plantations that are owned by independent smallholders or outgrowers (independent and corporate plantation without a mill).

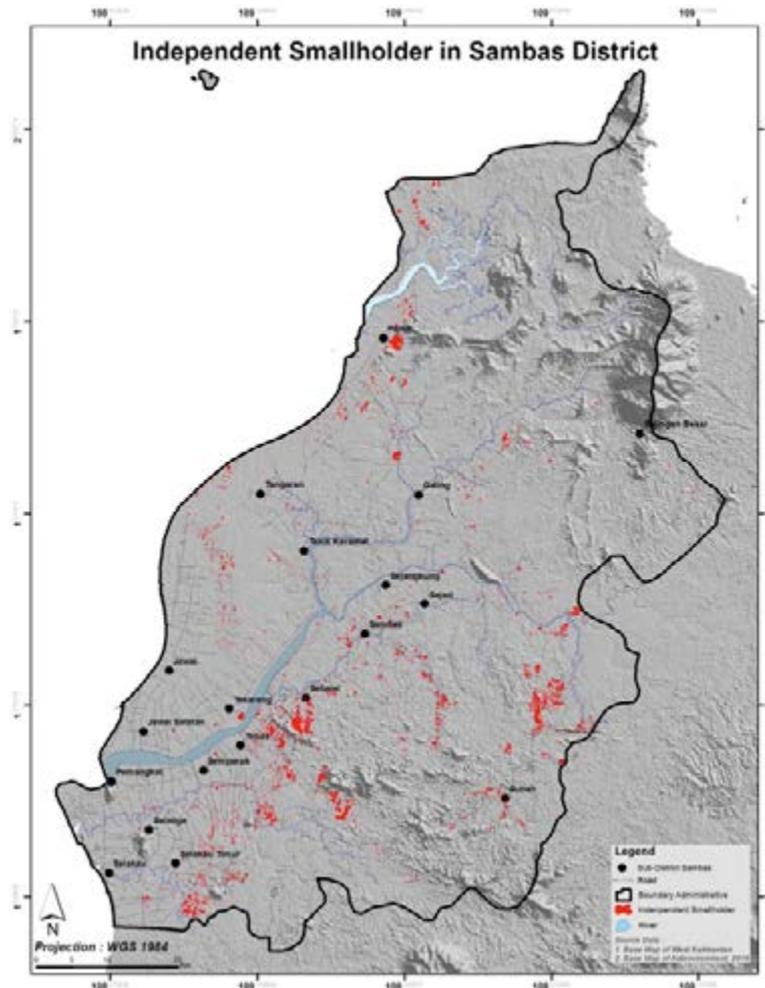
We value traceability to smallholders

Given the value of traceability to smallholders, we are engaging external expertise to use satellite technology to map the areas of smallholders in the catchment areas (or supply sheds) of our third-party mills. Our consultant Aidenvironment has recently successfully used high-resolution satellite imagery to identify independent smallholders in a larger landscape (Sambas district). This exercise will be extended to other landscapes.

Going forward, we will continue to trace back to origin, but our focus is on the supply shed in the landscape. We view supply shed in a landscape as being made up of mills with associated plantations, independent smallholders and independent plantations (corporate plantation without a mill). We will set traceability to supply shed with the help of high-resolution satellite imagery.

Additionally, for our four mills in Riau and North Sumatra that procure mostly from independent smallholders, we are working with the International Finance Corporation (IFC) to identify the independent smallholders based on a field survey.

Since our work on traceability began in early 2014, we have refined our definition on traceability and our approach, in particular to address the decision-makers in our supplying plantation groups.



credits: Aidenvironment



Approach

Along with the other major palm oil players in the industry, traceability is increasingly viewed as a means to an end; traceability does not necessarily lead to transformation on the ground. We found that tracing a CPO mill's ultimate owners (parent group or decision-makers) and addressing their impact on forests, peatlands and human rights offer a particularly useful approach.

“We found that tracing a CPO mill's ultimate owners (parent group or decision-makers) and addressing their impact on forests, peatlands and human rights offer a particularly useful approach.”

Refineries may seem like a natural starting point to start the transformation agenda as refineries receive CPO and PK from the mills. On the other hand, at Musim Mas, procurement is managed centrally from our operational headquarters in Medan, Indonesia. Hence the trade relationships start from the headquarters office. The engagement with the trading teams of our suppliers is managed at a centralised level because the trading teams of our supplier groups are based at their headquarters too.



“Through our work on traceability, we found that transformation efforts are most effective from the top.”

Traceability to decision-makers

Our approach towards the traceability to the plantation, known as “traceability to decision-maker” is based on the premise that our centralised trading team should deal with the centralised trading teams of supplier groups. Additionally, we analysed the volumes that we procure to understand the level of influence we could potentially have over these supplier groups.

This method is a more pragmatic and efficient way to engage and influence the management practices of the supplier group’s mills, no matter where these mills are located. Through our work on traceability, we found that transformation efforts are most effective from the top. If we can convince the parent company to embark on the sustainability journey, we can persuade the top management to cascade changes down through its chains of command.

Engaging decision-makers

Traceability to decision-makers identifies the key personnel for engagement. Our engagement process is: firstly, the procurement team will discuss our supplier requirements with the supplier and the traceability team will follow up on the engagement. Secondly, we will conduct a workshop to explain the technical parts of our policy. Finally, there will also be an active engagement with the top management of the supplying groups. When the needs arise our Executive Chairman, Mr Bachtiar Karim has on several occasions, engaged his peers of the large parent companies to embark on sustainable palm oil practices.

When the Executive Chairman of a parent company talks to his peers about sustainability, the decision-makers in these parent groups will be able to relate to a topic and review the situation. The mill verifications, as a first step in the engagement have shown so far that the reach has been at a local level and may not address the strategic issues. Often the decision-makers who have to consider the commercial value will look at sustainability differently as compared to local operational level (mill).

Start an engagement in places with new developments

Finally, this approach is necessary for new land development in places where no Crude Palm Oil (CPO) mill has been constructed. Our trade relationship with the parent company can help in engagement.

Full traceability to plantation is difficult

Nonetheless, we acknowledge that some stakeholders value full traceability, especially traceability to smallholders for a variety of reasons. For some, smallholders are considered disadvantaged suppliers to the supply chain and hence should be supported for better market access; for others, they are a target for (RSPO) certification or that clarity is needed on their land permits.

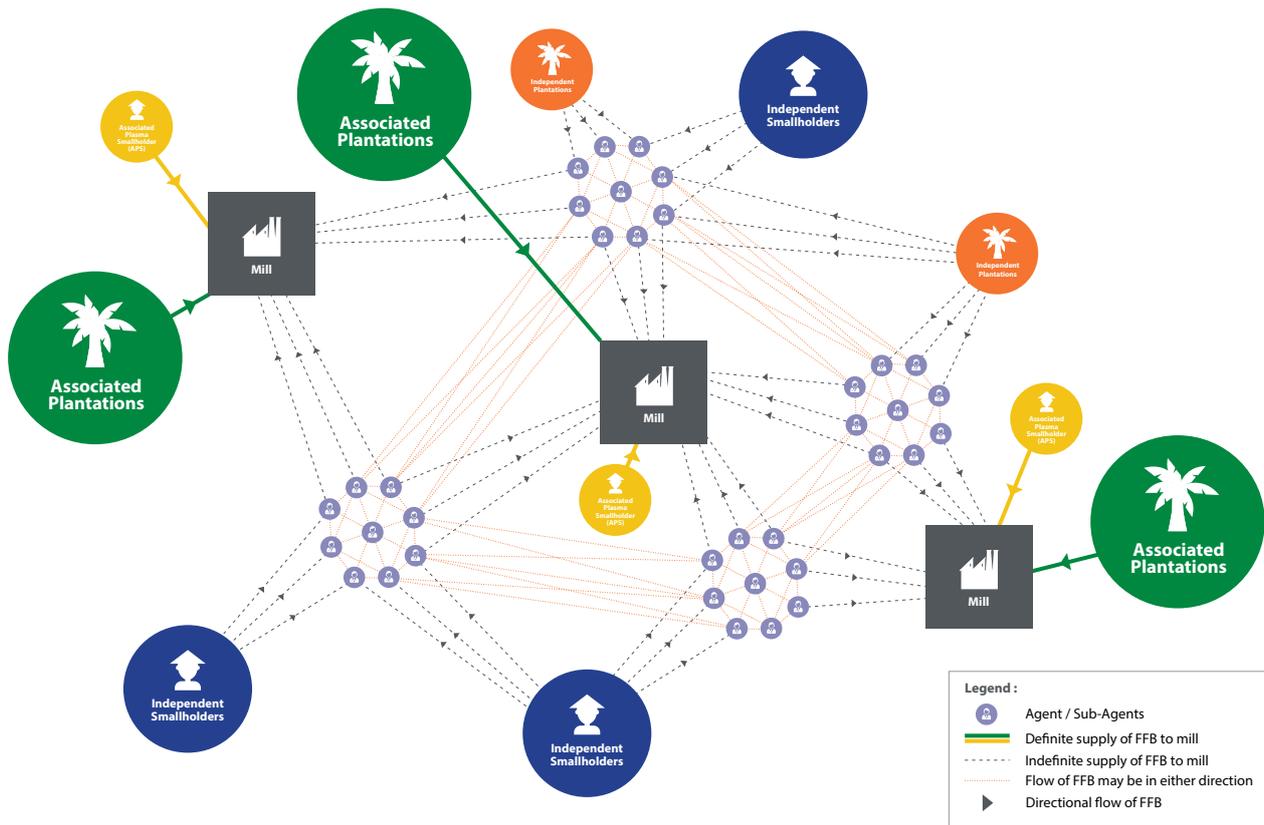
Smallholders who are associated with the mills are in theory, possible to identify and the supporting companies are accountable for these smallholder development areas.

However, independent smallholders (not associated with plantations or mills) are difficult to identify. We can only identify independent smallholders by field surveys which take time. Hence the industry has commissioned projects (e.g. by the Sustainable Trade Initiative or IDH) to identify them in defined landscapes.

Full traceability is particularly complicated in the following instances:

- a. Plasma (scheme smallholders) areas owned by mills with associated plantations.
- b. Corporate and smallholder suppliers that sell FFB to our supplying third-party mills.

The complexity of the mill's supply base:



Review Overview

- As of November 2016, we can trace 100% of our supply base of Crude Palm Oil (CPO) and Palm Kernel (PK) down to mill level. We can trace 48% of our supply base of CPO and PK to plantation level.
- We have 551 individual third-party supplying mills that belong to 226 parent companies, including our suppliers from Malaysia and Indonesia.
- Among the 226 parent companies, we have focused on 14 parent companies of which our procurement volumes are substantial which will give us leverage to start engagement. These companies are also seen to have potential risks that need to be addressed.
- Indonesia accounts for 98% of our supply base, as compared to Malaysia's contribution of 2%. Hence our traceability exercise is focused on Indonesia.
- The source of supply for our refineries outside of Indonesia is linked to Indonesia. Hence these refineries share the same supply base as the ones in Indonesia, except for our refineries in Malaysia and India. Our Malaysian refinery sources 47% of its CPO from third-party suppliers in Malaysia, while our Indian refineries source 10% of the CPO requirements from third-party suppliers.
- 29% of our third-party mills or 160 mills' coordinates are available on the global research organisation, World Resource Institute's (WRI) Global Forest Watch (GFW) platform.

Indonesia

- In Indonesia, we have 492 third-party mills that belong to 190 company groups.
- Six provinces contribute approximately 83% of our CPO supply base. These six provinces, in descending order of contribution are: North Sumatra, Riau, Central Kalimantan, South Sumatra, Aceh and West Kalimantan. Central Kalimantan has the highest level of traceability to plantation at 81%, as the plantations in this province is dominated by larger parent groups.

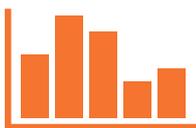
In contrast, North Sumatra has the lowest level of traceability to plantation at 27%.

- Out of the 190 parent groups in Indonesia, 11 groups have 100% traceability to their plantations.
- Our refineries that have the highest levels of traceability to plantations are our refineries Agro Makmur Raya (79%) in North Sulawesi and Sukajadi Sawit Mekar in Central Kalimantan (75%) and Megasurya Mas in East Java (75%).
- Through our consultant Aidenvironment, we have 186 dedicated maps of the supply shed for each mill and its associated plantations, which make up 34% of our third-party mills. These maps show the catchment area of the mill and the associated plantations. For the other mills, either the mills have no associated concession or the maps were not found.
- 34% of our third-party mills or 170 mills and their associated plantation concessions are available on the international NGO, Greenpeace's "Kepo Hutan" platform. While the platform does not show the location of mills, the platform indicates the plantation group's concession area in Indonesia.

Malaysia

- In 2016, we have 59 Malaysia-based third-party mills that belong to 36 company groups.
- All our third-party mills are in Peninsular Malaysia.
- Only four concession maps of our Malaysian supplying mills are available.





Data

The data presented is up to November 2016.

Traceability by facility

No	Company	Facility	State/ Province, Country	Product Type	Traceable to Mill	Traceable to plantation
Notes to traceability data		1	2	3	4	5
1	ICOF	Tvarur Oils and Fats	Tamil Nadu, India	CPO	100%	34%
2	Musim Mastika	Musim Mastika Oils and Fats	Johor, Malaysia	CPO	*76%	4%
3	ICOF	South India Krishna Oils and Fats	Andhra Pradesh, India	CPO	*92%	34%
4	Mikie Oleo Nabati Industr	Mikie Oleo Nabati Indus	West Java, Indonesia	CPO	100%	61%
5	Inti Benua Perkasatama	Inti Benua Perkasatama-Pelabuhan	Riau, Indonesia	CPO	100%	60%
6	Musim Mas	Musim Mas - Belawan	North Sumatra, Indonesia	CPO	100%	40%
7	Indokarya Internusa	Indokarya Internusa	South Sumatra, Indonesia	CPO	100%	40%
8	Sukajadi Sawit Mekar	Sukajadi Sawit Mekar	Central Kalimantan, Indonesia	CPO	100%	75%
9	Inti Benua Perkasatama	Inti Benua Perkasatama-Lubuk Gaung	Riau, Indonesia	CPO	100%	32%
10	Musim Mas	Musim Mas-Batam	Riau Islands, Indonesia	CPO	100%	61%
11	Agro Makmur Raya	Agro Makmur Raya	North Sulawesi, Indonesia (Bitung)	CPO	100%	79%
12	Musim Mas	Musim Mas-KIM 1	North Sumatra, Indonesia	PK	100%	41%
13	Musim Mas	Musim Mas – KIM 2	North Sumatra, Indonesia	CPO	100%	28%
14	Sukajadi Sawit Mekar	Sukajadi Sawit Mekar	Central Kalimantan, Indonesia (Sebabi)	PK	100%	100%
15	Sukajadi Sawit Mekar	Sukajadi Sawit Mekar	Central Kalimantan, Indonesia (Bagendang)	PK	100%	86%

* As our operations in Malaysia and India form a small proportion of our total CPO volumes (<2%), hence their traceability to mill percentages do not affect our overall Group traceability to mill percentage (99%).

No	Company	Facility	State/ Province, Country	Product Type	Traceable to Mill	Traceable to plantation
Notes to traceability data		1	2	3	4	5
16	Berkat Sawit Sejati	Berkat Sawit Sejati	South Sumatra, Indonesia	PK	100%	51%
17	Agro Makmur Raya	Agro Makmur Raya	North Sulawesi, Indonesia (Madidir)	PK	100%	68%
18	Musim Mas	Pangkalan Lesung	Riau, Indonesia	PK	100%	100%
19	Inti Benua Perkasatama	Inti Benua Perkasatama-Lubuk Gaung	Riau, Indonesia	PK	100%	35%
20	Wira Inno Mas	Wira Inno Mas	West Sumatra, Indonesia	CPO	100%	34%
21	Wira Inno Mas	Wira Inno Mas	West Sumatra, Indonesia	PK	100%	40%
22	Megasurya Mas	Megasurya Mas	East Java, Indonesia	CPO	100%	75%

Notes to traceability data:

1. Facility: refers to the name of the manufacturing plant that receives the products, either Crude Palm Oil (CPO) or Palm Kernel (PK). Our list of facilities is also indicated on our website [here](#).
2. State/ Province, Country: state is the political governance term used for India and Malaysia while province is the equivalent term for Indonesia.
3. Product type: the products that are traced in our traceability commitment are Crude Palm Oil (CPO) and Palm Kernel (PK).
4. Traceable to mill: the data indicates traceability level of the products processed by the refinery, right down to mill or CPO/PK level. The data is derived from the amount of traceable product divided by the total amount of products received by the refinery. For a mill to be considered traceable, we will need data on the mill's parent company name, mill name, mill's address and the volume of products that we procure for our facility.
5. Traceable to plantation: the data indicates the traceability level of the products, right down to plantation. For a plantation to be considered traceable, we will need the plantation's parent company name, plantation name, the coordinates of the plantation, the capacity of the associated mill, and the size of the concession.

Traceability by province (CPO)

No	Province	Provincial contribution (%)	Traceability within the province (%)
Notes to traceability data		6	7
1	North Sumatra	25%	27%
2	Riau	24%	35%
3	Central Kalimantan	15%	81%
4	South Sumatra	9%	50%
5	Aceh	6%	41%
6	West Kalimantan	4%	62%
Total		83%	N.A.

Notes to traceability data:

6. Provincial contribution: the data indicates the contribution (%) of the third-party mills in the province to our supply base: the total amount of CPO sourced from the province divided by the total amount of

CPO in our supply base. The figures include the potential contribution from our Group's plantations and mills that located in the province.

- Traceability within province: the data indicates the proportion (%) of traceable plantations located in the province. The data is derived from the total amount of traceable CPO from these plantations divided by the total amount of CPO that we sourced from the province. A note on Aceh: we buy mostly from mid to large-sized plantations with accompanying mills. However, we believe that there are more independent plantations in the supply chain which have no direct link to our third-party mills.

Traceability by province (PK)

No	Province	Provincial contribution (%)	Traceability within the province (%)
Notes to traceability data		8	9
1	North Sumatra	23%	39%
2	Riau	25%	42%
3	Central Kalimantan	9%	87%
4	South Sumatra	10%	52%
5	Aceh	7%	32%
6	West Kalimantan	3%	90%
Total		77%	N.A.

Notes to traceability data:

- Provincial contribution: the data indicates the contribution (%) of the third-party suppliers' PK from the associated plantations in the province to our PK supply base: the total amount of PK sourced from the province divided by the total amount of PK in our supply base. The figures include the potential contribution from our Group's plantations and mills.
- Traceability within province: the data indicates the proportion (%) of traceable PK that is sourced from the province. The data is derived from the total amount of traceable PK divided by the total amount of PK that is sourced from the province and are traceable to associated plantations of our third-party mills.

Certified Mills

Types of certification	Number of mills	% of total supplying mills, including our own mills
Notes to traceability data	10	11
Roundtable on Sustainable Palm Oil (RSPO)	148	26%
Indonesia Sustainable Palm Oil (ISPO)	104	19%
International Sustainability and Carbon Certification (ISCC)	65	12%

Notes to traceability data:

- Number of mills: we obtained the information on certification from the RSPO, ISCC and ISPO websites as well as questionnaires submitted by the third-party mills.
- % of total supplying mills including our mills: number of certified mills divided by our total number of mills.

Mill verifications

Since late 2014, we have conducted 21 mill verifications in the top supplying provinces in Indonesia. We have focused on Indonesia since Indonesia accounts for 98% of our supply requirements.

Out of 34 provinces in Indonesia, six provinces contribute to 83% of our CPO supply base. Provinces can be further sub-divided into regencies and cities. For each contributing province,



we selected regencies for increased engagement efforts such as mill verifications and other outreach programmes such as supplier workshops.

We chose these regencies based on these considerations:

1. Potential amount of leverage we have over the supplying parent groups based on the volumes that we procure;
2. The presence of environmental risk factors such as their proximity to the priority landscapes. The priority landscapes are analysed using geospatial information on legally protected national parks and peatlands.
3. The presence of other stakeholders who are keen on participation in active multi-stakeholder interventions.

Going forward, we will focus our efforts on the following regencies:

1. North Sumatra province: Langkat regency.
2. Central Kalimantan province: Seruyan regency
3. West Kalimantan province: Sambas regency
4. Aceh province: Aceh Tamiang regency, Aceh Timur regency and Singkil regency
5. Riau province: Bengkalis regency, Kuantan Singingi regency, Kampar regency, Pelalawan regency and Siak regency.
6. South Sumatra province: Musi Banyuasin regency.

Outcome of mill verifications: recommendations for Riau Province

This is a summary from CORE's diagnostic report for Riau Province. These recommendations were developed to address trending issues identified through completing five mill verifications in the province.

- A. Mill level interventions (led by mill): The recommendations for the mills are further classified as short-term action (with asterisks) and long-term action. The objective is to enable the mills to focus on the immediate actions that can be carried out in shorter term while developing measures for longer term actions;
- B. Mill level interventions (led by Musim Mas): We will try to gain access to and work with the mills on their action plan. This first step will be possible for some of the mills.
- C. Landscape level interventions: These recommendations will need support from other stakeholders including governments, civil society groups and the private sector. We could attempt to integrate these recommendations with the known landscape-level intervention to develop strategies for collaborations with other support. We could also take the lead to initiate communication with the relevant stakeholders.

We will publish the diagnostic study for our mill verifications in the Riau Province in January 2017.



Principle/ Section	(A) Mill Corrective Action	(B) Musim Mas Support	(C) Other Support
Land Tenure and Legislation	<ul style="list-style-type: none"> • *Collect basic information on the current and future suppliers to make sure that they are not in forest zone or protected area. • *Improve the current sustainability policy to cover Musim Mas' sustainability policy. • *Need to verify suppliers' land ownership type and proper plantation permit. 	<ul style="list-style-type: none"> • Facilitate the development of the sustainability policy and standard. 	<ul style="list-style-type: none"> • Include local government to support legal land ownership and tenure rights. • Local government need to establish control of the registration of land expansion.
HCV and Deforestation	<ul style="list-style-type: none"> • *Engage and communicate with the traders and smallholders on the importance of not converting new land before a rapid assessment is undertaken and to understand the type of habitat prior to conversion. • *Carry out HCV/HCSA assessment in plantations and associated smallholders (planted after 2010). • Develop a management program for identified HCV/HCSA areas within own plantation/mill for future or for replanting own plantation (if any). • Develop a system to verify their supplier commitment to "no deforestation". 	<ul style="list-style-type: none"> • Together with the mills in the region, undertake a landscape level HCV/ HCSA assessment to identify future potential areas and risks. • Share the knowledge with the mills about developing a verification system to verify the commitment of the mills' supply base to "no deforestation." 	<ul style="list-style-type: none"> • Support from consultants or NGOs with experience in participatory mapping.
Development on Peatlands	<ul style="list-style-type: none"> • *Prepare a policy to prohibit new development on the peatland. • *Maintain a subsidence measurement record. • Increase awareness of suppliers to apply best management practices for replanting in peatland. • Consider rehabilitation or restoration. 	<ul style="list-style-type: none"> • Advise mill and its supply base that has its plantation on Best Management Practices in peatland plantation. • Coordinate water management on peatland landscape that is occupied by more than one party. 	<ul style="list-style-type: none"> • Seek support from consultants, NGOs, or an official portal to provide information on location of peatlands and development status.

Principle / Section	(A) Mill Corrective Action	(B) Musim Mas Support	(C) Other Support
Use of Fire	<ul style="list-style-type: none"> • Share the good agricultural practices to the suppliers without using fire in land preparation. • Carry out a series of meeting on the no burning policy to smallholders. 	<ul style="list-style-type: none"> • Contribute experience of implementing good agricultural practices to the suppliers without using fire in preparing the land. • Provide training on fire management for plantation company. 	<ul style="list-style-type: none"> • Contact the plantation / agriculture service office for extension on implementation of no-burning policy.
Environment Impact Management	<ul style="list-style-type: none"> • Engage and communicate with its traders and smallholders on the importance of raising awareness on waste management and the use of hazardous agrochemicals. • Improve the waste water management and develop control mechanism near the villages to measure contamination from mill effluent. • Integrate the result of HCV study into <i>Upaya Pengelolaan Lingkungan</i> (UKL) (Measures for Environmental Management) / <i>Upaya Pemantauan Lingkungan</i> (UPL) (Measures for Environmental Monitoring) revision, so that identified HCV areas are included in the management of UKL / UPL. 	<ul style="list-style-type: none"> • Increase awareness by providing expertise to the mills and their suppliers on waste management and the use of hazardous agrochemical. 	<ul style="list-style-type: none"> • Seek advice from government office on spatial plan development progress and best management practice in buffer zones and protection of water from agriculture activities.
Greenhouse Gas (GHG) Emissions	<ul style="list-style-type: none"> • Prepare a management and monitoring plan to support an action plan for emission reduction. • Calculate and monitor the GHG emissions using applicable GHG tools (Indonesia Sustainable Palm Oil (ISPO), Roundtable on Sustainable Palm Oil (RSPO)). 	<ul style="list-style-type: none"> • Provide support to the mills for GHG reduction program which is beneficial to the landscape level. 	<ul style="list-style-type: none"> • Engage consultant or NGO with expertise in GHG assessment to support financial analysis and sourcing of finance for methane capture and Palm Oil Mill Effluent (POME) / Empty Fruit Bunch (EFB) fertiliser production system.

Principle/ Section	(A) Mill Corrective Action	(B) Musim Mas Support	(C) Other Support
Social Compliance	<ul style="list-style-type: none"> • *Carry out socialisation for workers on the declaration of human rights and ILO convention and other regulation related to manpower, especially on child labour. • *Improve the analysis on the cause of work accident occurrence (especially in own plantation) to find out preventive solutions and to increase hygienic awareness for workers. • Conduct Social Impact Assessment (SIA) for own plantation and mill. • Improve Corporate Social Responsibility (CSR) activities to be more strategic and aligned with local community development plan. 	<ul style="list-style-type: none"> • Share experience in the development process of social policies and support of management and monitoring plan. 	<ul style="list-style-type: none"> • Seek support from consultant or other service providers with social expertise dimension to the development and implementation of action plan to mitigate negative social impact.
Traceability	<ul style="list-style-type: none"> • Develop and implement procedures on FFB purchase as the traceability policy. The implementation of traceability by the mill could start with its lowest risk rank (plantation company) to the medium risk (cooperative) and the highest risk rank (the traders type). • *Develop a registration system for its supply base to the origin of the FFB to the extent of the farm level and do not stop at the agent/trader level. The information must include: the identity of the farmer and his farm location, area and land right status. • Check on quota during FFB purchase as an initial step to ensure traceability. • Support the incoming FFB traceability with a record of FFB origin. 	<ul style="list-style-type: none"> • Support in developing traceability system and policies on traceability. • Support the tracing process of the mills' supply base e.g. Geographic Information System (GIS) support for farm survey, mapping and analysis. • Provide relevant support to its suppliers to improve the productivity of its supply base. Start a separate engagement programme that focuses more on agronomic and sustainable practices. 	<ul style="list-style-type: none"> • Use consultant / NGO to support participatory farm mapping, production data and support the use of apps of farmers / traders and mills to build a good communication.



Progress Review

Statement from CORE

Musim Mas announced their Sustainability Policy in December 2014, applicable immediately to their operations and those of all third-party suppliers. Musim Mas requires supplier mills and their suppliers of FFB to meet their policy commitments but recognises that compliance will require a process of constructive engagement with mills and their parent companies, delivered in partnership with CORE. An important component of this engagement is to deliver a programme of mill-level verification assessments.

The verification assessment programme verifies the performance of identified high-risk mills against Musim Mas' policy commitments, both to highlight areas where improvement is needed to close compliance gaps and to inform an engagement strategy at the level of the supplier company group. A tertiary purpose of the assessments is to help identify common sustainability challenges that inform the planning of interventions that Musim Mas would aim to roll out across priority landscapes. Critical to Musim Mas's strategy is a transformation objective, taking a landscape level approach to implementation and focusing effort in places where impact can be achieved. In agreement with Musim Mas, CORE has followed an approach that focuses on:

- Engaging with clusters of mills in priority landscapes, with an initial emphasis on regencies in Riau province.
- Prioritising mills owned by plantation company groups that are key suppliers to Musim Mas, based on total volumes & strategic commercial partnerships.

Specific activities in 2016 have

included (1) a series of mill-level verification assessments, supported by (2) workshops aimed at a wider cross-section of the supply base, and (3) further work on risk assessment to inform this process. CORE targeted achieving an initial tranche of 10 site verification assessments in 2016, clustered in priority regencies in Riau province, Indonesia. The priority regencies for Musim Mas are: Kuantan Singingi, Kampar and Siak, selected based on relative environmental sustainability risk and volumes sourced.

The mills within each key company group have been classified into risk categories, and on this basis, CORE and Musim Mas have identified mills to be included as part of the verification programme. This site assessment programme verifies the performance of the identified high risk mills against Musim Mas' policy commitments, but just as importantly is utilised as a crucial element of engagement at the level of the supplier company group, as well as informing the interventions that Musim Mas should prioritise across the priority landscape. CORE utilise a standard approach to verification including defined indicators, methodology, reporting template, and continuous improvement plan. Eight of the assessments have been completed to date, with two more planned in early 2017.

To address both the specific verification findings and broader barriers to improving sustainability performance, CORE and Musim Mas will develop a landscape-level programme that includes the following types of intervention:

1. Develop and monitor the implementation of corrective action plans for each mill based on the findings of the assessment

visits.

2. Develop and deliver a series of capacity building workshops for key mill and plantation companies. For mills to effectively implement the corrective action plans, staff need to develop capacity in key areas. The workshops allow the mills to share challenges and strategies for overcoming them, and potentially develop a potential support network.
3. Develop a long-term capacity building programme to address critical areas of non-compliance, as well as contribute to production and livelihood objectives. Key policy commitments need to be addressed in a systemic and comprehensive way by taking fundamental steps to develop capacity at a regency and provincial level.
4. Identify existing landscape level initiatives that Musim Mas can actively contribute to, in partnership with other stakeholders, that seek to address some of the key sustainability challenges. CORE have already identified some specific initiatives for potential support and collaboration, but further fieldwork will be undertaken across the priority regencies to review wider options.

This landscape-level approach now gives a solid baseline to engage with suppliers much more actively in 2017 and beyond on the implementation of critical sustainability requirements, including deforestation, smallholder FFB traceability, peatland management and labour practices. The programme will also be expanded to a second priority location in 2017.

Neil Judd
Proforest

Gary Paoli
Daemeter Consulting

Edward Millard
Rainforest Alliance

Providing support to our third-party mills

We acknowledge the importance of smallholders to the sustainable palm oil debate and are designing an Extension Service Programme (ESP), made up of a team of agronomists, environmental and social experts who will provide sustainability consultation for the independent smallholders of our third-party mills.

ESP is the creative brainchild that emerged after our mill verifications: how can we support the smallholders whom we have identified as suppliers to the mills that we have engaged? How do we further enhance ways to assist our supplying mills and gain the goodwill of the parent companies?

“How do we further enhance ways to assist our supplying mills and gain the goodwill of the parent companies?”

Our strength lies in our technical expertise e.g. agronomy, best practices, Occupational Health and Safety implementation, pest and disease control, safe use of chemicals, use of fertilisers, and fire management.

We realised that the technical expertise that we offer to the smallholders is an incentive for the mills to collaborate with us. If the independent smallholders who supply to the mills produce good oil yields, the mills will benefit too. If the mills in one regency could benefit from our ESP programme, there might be interest by the groups in other regencies for implementing similar projects. If we can build up the goodwill within the landscape over time, we can develop model case studies for others to adopt sustainable practices.



Existing multi-stakeholder initiatives

This is a list of the known multi-stakeholder initiatives in the landscape. We have also been actively participating in some of these initiatives.

Province	Regencies	Key concern	Landscape level intervention
Riau	Siak	Proximity to Giam Siak Kecil landscape	A multi-stakeholder programme led by the head of regency of Siak (bupati) is underway and is potentially made up of the private sector, NGOs and donor organisations. There is currently no private sector player.
	Pelalawan	Proximity to Tesso Nilo National Park	We are part of the Tesso Nilo Task force headed by international NGO, WWF. The task force is a multi-stakeholder programme involving government officials, the private sector and NGOs, aiming to identify a solution to the issue of deforestation in the national park.
	Kuantan Singingi		
Aceh	Aceh Tamiang	Proximity to Leuser Ecosystem	This landscape is part of a joint monitoring project with our peer companies, led by non-profit The Forest Trust (TFT).
	Aceh Timur		
	Aceh Singkil		
South Sumatra	Musi Banyuasin	Proximity to Sembilang-Dangku landscape	We are one of the early private sector participants who has pledged our commitment to the multi-stakeholder initiative called South Sumatra Eco-region Alliance, led by donor organisation, IDH and implementation partner, non-profit, the Zoological Society of London (ZSL). This regency has also been selected as the first regency to work towards the RSPO Jurisdictional Certification.
Central Kalimantan	Seruyan	Proximity to Tanjung Puting National Park	The lead implementation partner in this regency is the non-profit, Earth Innovation Institute/ INOBU.
North Sumatra	Langkat	Proximity to Leuser Ecosystem	See Aceh above.

Conclusion



Since we started working on our policy commitments, the journey has been a challenging process and will remain so. We recognised areas that needed improvements and challenges that needed help from external stakeholders.

To our internal and external stakeholders who have helped us in many ways in our journey, we would like to thank them.

Going forward for 2017, we will work on the following initiatives:

1. Increase the number of mill verifications in the selected regencies and seek solutions on the macro issues. Increase the number of verifications in Central Kalimantan and South Sumatra provinces.
2. Increase visibility of the landscapes by identifying independent smallholders using high-resolution imagery.
3. Start the action plans for mills that have been verified by our traceability team.
4. Start our ESP (Extension Services Programme) for the independent smallholders of our third-party suppliers.
5. Engage more decision-makers of the parent groups to ensure compliance with our Sustainability Policy.
6. Develop a Controlled Purchase Mechanism for engaging our third-party suppliers. 





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Headquartered in Singapore, our business is involved with every part of the palm oil supply chain: From managing plantations and mills to refining crude palm oil and manufacturing palm-based products, supported by an extensive fleet of ship tankers and barges that enhances our logistical capabilities. We employ 37,000 employees in 13 countries across Asia Pacific, Europe, and the Americas, committed to meeting global demand for Palm oil and its derivative products in an environmentally, socially and economically viable manner.

This publication is produced by Musim Mas. Comments and suggestions are welcomed. Please contact the corporate communications team at sustainability@musimmas.com or visit our website at www.musimmas.com.