Implementation of Musim Mas

*Sustainability Palm Oil Policy*

2017 Diagnostic Report on
Musim Mas Site Verifications in
South Sumatra Province – Indonesia

Final report date : 26 February 2018
Prepared by : Rainforest Alliance – Assurance Team
Foreword

This report presents results of the Rainforest Alliance auditor’s evaluation of company systems and performance in South Sumatra against the applicable standards.

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Executive Summary

Musim Mas announced its sustainability policy in December 2014 to bring benefits to the community; to promote positive environmental impacts; to fully comply with local, national, and international laws; and to establish a traceable supply chain. This policy became applicable immediately to the company’s operations. Musim Mas requires supplier mills and their suppliers of fresh fruit bunch (FFB) volume to meet Musim Mas’s policy commitments, but recognises that compliance will require a process of constructive engagement with mills and their parent companies. An important component of this engagement is to perform mill-level verification assessments.

Musim Mas assigned Rainforest Alliance to conduct a mill-level verification assessment programme. This programme verified the performance of identified high-risk mills against Musim Mas’s policy commitments, both to highlight areas where improvement was needed to close compliance gaps and to inform an engagement strategy at the level of the supplier company group. A third objective of the programme was to help identify common sustainability challenges that inform the planning of interventions Musim Mas aims to roll out across priority landscapes.

Musim Mas targeted ten verifications in Indonesia in 2017, to be conducted in priority regencies in Central Kalimantan and South Sumatra, Indonesia. Seven of these ten verifications were completed, and the other three verifications will be conducted in early 2018. Musim Mas’s priority regencies in South Sumatra Province for 2017 were Musi Banyuasin, Banyuasin, and Musirawas, which were selected because of environmental risk and FFB volume. The following diagnostic report covers six palm oil mills (POMs) that are located in priority regencies in South Sumatra.

This diagnostic report provides some inputs that will enable Musim Mas to develop a strategic approach to address issues raised at a landscape level. The report combines findings from the verification assessments with knowledge of complementary initiatives in South Sumatra as the basis for planning interventions. Findings are presented in three parts:

1. Analysis of mill-level of compliance related to Musim Mas’s Sustainability Palm Oil Policy Indicators, based on the Rainforest Alliance verification assessment of six POMs.
2. Initial analysis of key landscape-level challenges identified by the verification results to date.
3. Brief review of existing initiatives in priority provinces relevant to addressing the identified challenges.

The verification programme in South Sumatra was conducted with an objective to review suppliers’ commitment to the Musim Mas Sustainability Palm Oil Policy. Field verification results showed that the six assessed POMs were not familiar with the Musim Mas sustainability policy and had not yet adopted this policy into their individual mill policies. Musim Mas needs to improve its dissemination strategy by directly communicating the Musim Mas sustainability policy to supplier staff responsible for implementing the policy, so mills understand it and can develop programmes to support compliance of sustainability standards including but not limited to those identified in the Musim Mas sustainability policy.

This diagnostic report establishes a solid basis for Musim Mas's involvement with its suppliers in 2018 and beyond regarding implementation of critical requirements for sustainability. The
data are presented in sequence order, from highest to lowest non-compliance percentages for the eight principles of Musim Mas’s sustainability policy: (1) greenhouse gas (GHG) emissions, (2) deforestation, (3) environmental impacts management, (4) land tenure and legislation, (5) social compliance, (6) supply chain, (7) peat management, and (8) use of fire. Non-compliance percentages were found to be highest in the indicators of greenhouse gas (GHG) emissions, deforestation, and environmental impacts management. FFB suppliers’ performance in these three indicators showed zero compliance (see diagram 02 on page 14). No major non-compliance was found in the indicators of peat management or use of fire.

This diagnostic report also includes Rainforest Alliance recommendations for addressing major non-compliance issues and broader sustainability challenges at the landscape level. Musim Mas shall consider which recommendations could be addressed by Musim Mas and which others could be implemented through collaboration with existing landscape-level initiatives implemented by civil society organisations (CSOs) or the government of Indonesia.

**Deforestation, Land Tenure and Legislation, and Supply Chain**

Most of the land cover in the two priority regencies in South Sumatra Province are forest areas in which no less than 45% is conservation area (protected forest, national park, and wildlife reserve). This information was synthesized from the verification reports of the six POMs that show major non-compliance in the supply chain regarding MM’s deforestation principle at 58%; minor non-compliance was found to be 42% (diagram 02, page 14). Moreover, major non-compliance in the supply chain regarding land tenure and legislation was 29%; minor non-compliance was 48% (diagram 02, page 14). Based on these findings, identification of high conservation stock (HCS) forests and high conservation value (HCV) areas, as well as monitoring and managing these areas, should be prioritized to ensure that all plantations managed by each mill have obtained cultivation rights (*Hak Guna Usaha*) and all smallholder suppliers have ownership certificates to prove land legality.

The analysis results for the supply base of the six POMs in South Sumatra showed that most FFB supplies are heavily dependent on FFB suppliers or traders (30.2% or almost one-third of the FFB supply), thus indicating that the FFB supply base in the six POMs has high risk of non-compliant traceability (see section 2.3). This finding aligns with the verification results of the six POMs’ performance on the supply chain indicator, which showed 23% major and 47% minor compliance (see diagram 01 on page 13). Referring to the landscape profile of priority regencies in South Sumatra with a high risk of insufficient FFB traceability, completion of sustainability requirements for deforestation, land tenure and legislation, and supply chain principles is a priority:

1. To develop effective method for each mill’s third-party suppliers, including bigholders and smallholders, to identify HCV and HCS areas, as well as to identify environmental and social impacts.

2. To develop a database that provides information on FFB farms’ risk level related to non-compliance in the Musim Mas policy principles of deforestation, conservation areas, fire, and peatland per administrative area, such as village or regency. This database is expected to be utilized effectively by Musim Mas’s suppliers’ mills to identify their risk level, thus can also advise on third-party supplier selection. If this method can be replicated, profiles will be created for each area.

3. To develop a mechanism for mills to ensure third-party FFB suppliers can prove their commitment to prohibiting illegal FFB.
Greenhouse Gas Emissions and Environmental Impacts Management

The highest percentage of major non-compliance in mill operation and supply chain management appears in relation to GHG principles, with mill operational major non-compliance up to 42% (diagram 01, page 13) and major non-compliance in supply chain management up to 92% (diagram 02, page 14). Major non-compliance in environmental impacts management on supply chain management performance looks high, it reached up to 33%, while minor non-compliance reached up to 67% (diagram 02, page 14). Verification results in the field revealed that compliance towards this principle has not becoming a priority yet, and several mills have insufficient capacity and knowledge regarding this issue.

4. To facilitate a capacity-building event for Musim Mas’a suppliers to support their capacity to bring their palm oil farms in line with sustainable palm oil management principles and the Musim Mas sustainability policy. The capacity-building agenda may involve inviting third-party FFB suppliers and farmers to workshops in several priority areas. The workshop for smallholders may be designed specifically to address sustainable smallholder palm oil plantations management.

Social Compliance

Some mills have developed social programmes based on social impact assessments conducted in villages near mill locations. However, most mills provides social programmes based on requests or proposals from the head of a village, as there were currently neither social impact assessment nor participatory communication with village officials and surrounding communities in the development of social programmes. The percentage of major non-compliance in mill operations was 15% (diagram 01, page 13), while in the supply chain, the major non-compliance reached up to 25% (diagram 02, page 14). Verification results in the field revealed compliance related to absence of the free prior and informed consent (FPIC) process, improvements in employment, and enforcement of occupational health and safety (OHS).

5. To share experience in the development process of social policies and support management and monitoring plans.

The priority intervention recommendations and the brief overview of landscape-level initiatives in South Sumatra Province discussed in this diagnostic report are intended to support Musim Mas’s engagement with its current third-party suppliers and contribute to an intervention plan to be executed in a priority landscape. Musim Mas shall identify existing landscape-level initiatives that the company can actively contribute to in pursuit of addressing some of the sustainability challenges described in this report. This report identifies two specific initiatives that merit serious consideration: the Sustainable Districts Platform or Lingkar Temu Kabupaten Lestari (LTKL), initiated by Madani Berkelanjutan, Perkumpulan Sawit Lestari (PSL), Rainforest Alliance, and few other stakeholders including the government of Musi Banyuasin Regency; and the Standard Operating Procedure (SOP) of Deforestation-free Smallholder Palm Oil Plantation initiated by Serikat Petani Kelapa Sawit (SPKS) and Greenpeace Indonesia.
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1. Introduction

Rainforest Alliance has been supporting Musim Mas to conduct verifications since early 2016. At that time, Rainforest Alliance partnered with the Consortium of Resource Experts (CORE). The diagnostic report published in 2017 provides an overview of Riau Province, while this year’s report focuses on South Sumatra Province. This diagnostic report offers recommendations for Musim Mas to develop a strategic approach for solving some problems found at the landscape level based on mill verification results from Rainforest Alliance verification completed in 2017.

1.1 Background

Musim Mas (MM) announced its Sustainability Palm Oil Policy in December 2014, at which time the policy became immediately applicable to all MM operations and its third-party suppliers. The policy consists of five main commitments as quoted from MM’s website:

1. Bring benefits to the community.
2. No deforestation of High Conservation Value (HCV) areas and High Carbon Stock (HCS) forest.
3. No development of peatland regardless of depth.
4. Fully comply with local, national and international laws.
5. Establish traceable supply chain.

Musim Mas requires supplier mills and their suppliers of FFB to meet these policy commitments, but recognises that compliance will require a process of constructive engagement with mills and their parent companies. An important component of this engagement is delivery of a programme of mill-level verification assessments.

Critical to Musim Mas’s policy implementation strategy is its transformation objective, taking a landscape-level approach to implementation and focusing effort in places where impact can be achieved.

1.2 Objectives and Progress to Date

The verification assessment programme verifies the performance of identified high-risk mills against Musim Mas’s 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 to help to inform the planning of interventions that Musim Mas aims to roll out across priority landscapes. Rainforest Alliance finished seven out of ten verifications planned in 2017.
Five out of seven verified mills are located in South Sumatra, while the rest are located in Central Kalimantan.

This diagnostic report provides some recommendations to help Musim Mas develop a strategic approach for addressing issues at the landscape level. The report aims to combine findings from the verification assessments with knowledge of complementary initiatives in South Sumatra Province as a basis to plan interventions. As an initial step, this report presents analysis of the findings from South Sumatra Province—one verification was conducted in 2016 and five verifications were conducted in 2017—to nurture a deeper understanding of palm oil mill sustainability challenges and awareness at the landscape level on other related initiatives or programmes in the province.

2. Methodology

2.1 Risk Assessment

Risk assessment is an essential element of supplier engagement methodology, as understanding variation in risk factors helps to (a) identify the regencies where priority groups are clustered for engagement to advance landscape transformation aims, (b) inform selection of mills to include as part of the mill verification programme, and (c) allow visibility on group level risk profiling and monitoring of progress. Specifically, the mills within each key company group have been classified into risk categories, and on this basis Musim Mas has identified mills to be included as part of the verification programme.

2.2 Selection of Mills for Verification

Mill selection was conducted by the Musim Mas team with an approach that focused on:

- Engaging with clusters of mills in priority landscapes, with an initial emphasis on regencies in South Sumatra Province
- Prioritizing mills owned by plantation company groups that are key suppliers to Musim Mas, based on total volume and strategic commercial partnerships

On this basis, the list of mills selected for verification assessment, together with the site verification dates, is as follows:

<table>
<thead>
<tr>
<th>No</th>
<th>Date of Site Verification</th>
<th>Regency</th>
<th>Mill ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>21-24 February 2017</td>
<td>Musi Banyuasin</td>
<td>POM A</td>
</tr>
<tr>
<td>2</td>
<td>12-16 June 2017</td>
<td>Musi Banyuasin</td>
<td>POM B</td>
</tr>
<tr>
<td>3</td>
<td>21-23 August 2017</td>
<td>Banyuasin</td>
<td>POM C</td>
</tr>
</tbody>
</table>
To complete this diagnostic report, Rainforest Alliance conducted verification assessment in six POMs between 21 February and 19 October 2017. All mills were located in South Sumatra Province.

### 2.3 Mills’ Supply Base Overview

The mills’ supply bases varied: mills sourcing from their own, plasma, or other companies’ plantations; independent smallholders operating in farmer groups or as individuals; cooperatives; and FFB agents or traders. The mill base proportion table below shows the traceability risk per supplier category from the lowest risk (mills that own their own plantation) to the highest risk (mills that rely on agents). The result of this supply base analysis for the six POMs in South Sumatra shows that the highest proportion of FFB supply comes from mill-owned plantations (31.64%), followed by supply from FFB agents or traders (30.20%); supply from plantation companies (17.23%); supply from plasma (10.46%); supply from independent smallholders (6.14%); and supply from cooperatives (4.33%). One-third of FFB supply comes from agents, indicating that the FFB supply in the assessed six POMs has high risk of insufficient FFB traceability. Each mill uses a different strategy to maintain its supply base and to maintain acceptable levels of FFB supplies. An overview of FFB supply is presented below.

<table>
<thead>
<tr>
<th>POM</th>
<th>Proportion of Total Supply Base (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Own Plantation</td>
</tr>
<tr>
<td>A</td>
<td>47.80%</td>
</tr>
<tr>
<td>B</td>
<td>25.73%</td>
</tr>
<tr>
<td>C</td>
<td>0.28%</td>
</tr>
<tr>
<td>D</td>
<td>82.62%</td>
</tr>
<tr>
<td>E</td>
<td>1.39%</td>
</tr>
<tr>
<td>F</td>
<td>2.49%</td>
</tr>
<tr>
<td>Percentage*</td>
<td>31.64%</td>
</tr>
</tbody>
</table>

Note: * The percentage presented is each type of supply base percentage compared to the total volume of FFB from six POMs.
Traceability level for each supply category in order, from low risk to high risk:
1. Owned plantation – FFB came from managed plantation owned by organization
2. Associated smallholder – FFB came from smallholders that have an agreement with organization for plantation nursing and/or replanting programme
3. Plantation company – FFB came from another company that owns plantation
4. Independent grower – FFB came from large plantation or smallholder
5. Cooperative – FFB came from a group of farmers joined in an autonomous, voluntary association to meet common economic, social, and cultural needs
6. Traders/ Agents – FFB came from middle-man who purchases FFB from different source (e.g., farmers, cooperatives, or other plantations) and delivers the FFB it to mill

2.4 Site Verification Process

Mill-level verification is a site-based assessment of the performance of a palm oil mill and its FFB supply base against one set of indicators. This third-party verification process is summarized in the diagram below:

The objective of site verification is to record each mill’s compliance level with the Musim Mas sustainability policy requirements. This activity is not an audit nor an assessment with a pass-or-fail result but is a tool intended to provide recommendations for reducing compliance gaps and to achieving better performance.

The site verification process starts when the mill provides the mill profile and some information about operation. This information is reviewed by the verification team before the field visit. The field visit starts with an opening meeting and ends with a closing meeting at the mill; all relevant staff and management representatives are expected to attend these meetings. The verification team uses three different approaches to confirm their observations: document review, interview with staff, and field observation. The results of the preliminary observation are presented and discussed in the closing meeting. The verification team then prepares a verification report that presents observation results and a recommended action plan for improvement.
The verification indicators used in this diagnostic report were developed from the Musim Mas Sustainability Policy’s eight principles in the following manner:

<table>
<thead>
<tr>
<th>No</th>
<th>Principle</th>
<th>Indicator</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Land tenure and legislation</td>
<td>7 indicators</td>
</tr>
<tr>
<td>2</td>
<td>Deforestation</td>
<td>6 indicators</td>
</tr>
<tr>
<td>3</td>
<td>Development on peat lands</td>
<td>3 indicators</td>
</tr>
<tr>
<td>4</td>
<td>Use of fire</td>
<td>1 indicator</td>
</tr>
<tr>
<td>5</td>
<td>Management of Environmental impacts</td>
<td>3 indicators</td>
</tr>
<tr>
<td>6</td>
<td>Greenhouse gas (GHG) emissions</td>
<td>2 indicators</td>
</tr>
<tr>
<td>7</td>
<td>Social compliances</td>
<td>14 indicators</td>
</tr>
<tr>
<td>8</td>
<td>Supply chain</td>
<td>5 indicators</td>
</tr>
<tr>
<td></td>
<td><strong>TOTAL</strong></td>
<td><strong>41 indicators</strong></td>
</tr>
</tbody>
</table>

2.5 Categorisation of Site Verification Results

The initial output from the verification process was a report that covered all the observations from the verification visit. The site verification process at the mill resulted in a set of findings that categorised compliance with each indicator using the following results classification system.

- **Compliance**
  - Compliance with indicator

- **Minor non-compliance**
  - Has the potential to decrease performance against this indicator over time; and/or
  - Repeated non-compliance at low level that can result in impacts or tendency to result in impacts to overall mill performance and the suppliers; and/or
  - Can be solved immediately

- **Major non-compliance**
  - Non-compliance with legal requirements; and/or
  - Systemic non-compliance repeated on higher level that can result in impacts or tendency to result in impacts to overall mill performance and the suppliers; and/or
  - Dangerous to life and health directly
2.6 Regency-level Initiative Mapping

Besides the site verification programme described above, Rainforest Alliance also conducted a desk review of initiatives and ongoing and planned programmes in the three Musim Mas priority regencies in Musi Banyuasin, Banyuasin, and Musirawas. This desk review was conducted by collecting information available from public domain sources: information from NGOs, Google searches, and input from Musim Mas.

This review offers an initial indication of collaboration opportunity for addressing sustainability issues in the region but should not be considered a complete list of all possible collaboration opportunities in the field, as several local initiatives and programmes are not identified here. The collaboration opportunities that are identified here need to be explored further by Musim Mas to evaluate whether they meet Musim Mas’s needs.

3. Diagnostic

The diagnostics are divided into three analysis sections:

1. Analysis of the level of compliance of the palm oil mills (POMs) related to Musim Mas’s Sustainability Palm Oil Policy indicators based on the Rainforest Alliance verification assessment of six POMs.

2. Initial analysis of key landscape-level challenges identified from desktop review.

3. Brief review of existing initiatives in priority provinces relevant to addressing the identified challenges.

In appendix B, the three analyses are combined to identify recommendations for policy implementation activities for further consideration by Musim Mas.

3.1 Verification Results

The verification results summary synthesizes observation results from the six POMs visited by the Rainforest Alliance team. The analysis was founded on two approaches:

In the first approach, the analysis was based on non-compliance to the indicators related to Musim Mas’s eight sustainability principles. The mill performance assessment began with dividing the mills’ work into two operational scopes, namely palm oil mill operations and supply base management operations (including the mill-owned plantation and third-party suppliers).
The following diagram presents a summary of the mills’ compliance with the eight principles in the verification checklist. Because the number of indicators on each principle varies, the compliance or non-compliance number is converted to a percentage to simplify the comparison. Detailed calculations are presented in appendix B, which shows the level of conformity by each of the six POMs with each principle. Some of the identified non-compliance can be addressed at the mill level, while other non-compliances should be approached through initiatives aimed at a wider landscape level.

![Mill performance analysis on each principle](image)

Diagram 01. Mill performance analysis on each principle

The diagram above represents compliance on palm oil mill operation performance to the indicators grouped by principle. All indicators in principle 2 (deforestation), principle 3 (development on peat lands) and principle 4 (use of fire) are not applicable to palm oil mill operations.

Overall, the performance of palm oil mill operations related to land tenure and legislation (principle 1), social compliance (principle 7), and management of environmental impact (principle 5) was quite high; however, the palm oil mills’ performance on greenhouse gas emissions (principle 6) and supply chain (principle 8) was low. The non-compliance in each principle will be discussed further at the end of section 3.1.
Supply base performance analysis on each principle

The diagram above represents supply base management operations performance, including the supply from a mill-owned plantation, plasma (schemed smallholders), and other third-party suppliers, such as cooperatives, plantation companies, and FFB agents and traders. All indicators in principle 8 (supply chain) cannot be applied in the scope of supply base management operations because supply chain management is the responsibility of each mill. More than 50% of peat-related indicators cannot be applied because 50% of visited mills were not located in peat areas.

Compliance among the supply base was highest in principle 4 (use of fire), but overall, almost all other principles in the Musim Mas’s field checklist were at a critical point, especially the principles related to environmental sustainability: principle 6 (greenhouse gas emissions), principle 2 (deforestation), and principle 5 (management of environmental impacts). Principle 1 (land tenure and legislation) was also becoming a concern, following by principle 7 (social compliance).

In the second approach, the analysis was based on identifying compliance and non-compliance at each mill. The diagram below shows the results for compliances and major and minor non-compliances on each indicator for each mill that was assessed against the eight principles of the Musim Mas verification checklist. This analysis allows a clear comparison of the overall performance of each mill operation and aims to highlight which mills need immediate attention and support from Musim Mas.
The scope of this second analysis can be divided into:

1. Mill performance related to palm oil mill operations by exempting indicators in principle 2 (deforestation), principle 3 (development on peat lands), and principle 4 (use of fire).
2. Mill performance related to supply base management operations by exempting indicators in principle 8 (supply chain).

Diagram 03. POM performance related to mill operation

The diagram above shows that the compliance of POM C (about 23%) was the lowest compared to other mills, followed by POM E with 32% compliance. POM A and POM F showed the same compliance rate (42%), and POM D showed 48% compliance, with the lowest rate of major non-compliance (around 3%). POM B showed the highest percentage of compliance (about 71%), with a non-compliance score of 10%.

These overall results indicate that POM C and POM E are top priorities for engagement and support to create a corrective action plan. Although the major non-compliances in both mills were not the highest, minor non-compliances could become major if no action were taken. Most of the mills that were visited had attended to ISPO certification but had not yet finished the certification process completely. Some mills had passed the first stage of ISPO certification and were moving into the second stage; other mills had passed the second stage of ISPO certification but hadn’t received the final decision from ISPO committee.
In terms of improving POM performance related to FFB supply base management operations, POM F was the top priority, as shown by its low percentage of compliance, followed by POM A and POM C. However, supply base management in each mill needs to be assessed with different approaches, because some mills’ FFB supply depend on third-party suppliers, so building cooperation between the mill and its third-party suppliers is important.

In the few mills that have a main plantation, mill management could manage the FFB supply, since management has better bargaining positions compared to mills with FFB supply heavily dependent on third-party suppliers. Further, the existence of plasma plantations in which operational mechanisms can be controlled by mill management provides an alternative FFB supply chain model.

In the analysis of mill management and the supply base, the highest non-compliance is found in greenhouse gas emission (principle 6), while the second and the third highest non-compliances are in supply chains (principle 8) and land tenure and legislation (principle 1). The supply base shows the second and third highest non-compliances in deforestation (principle 2) and environmental impacts management (principle 5).

Based on the verification assessments conducted in the six POMs, the main thematic issues related to non-compliance with MM’s eight sustainability principles are as follows:

(i) Greenhouse gas (GHG) emissions – Principle 6

Non-compliance of mill operations and their supply base is highest relative to greenhouse gas emission indicators. The percentage of non-compliance in GHG policies
on palm oil mill operation was 42%, while the non-compliance percentage on supply base management operations was 92%. This high rate of non-compliance was due to all third-party suppliers not yet having identified GHG emissions, while only some mills that own their own main plantations had identified GHG emissions. Field verification results indicated that compliance with GHG emissions is not a concern for mill management and especially not a concern in FFB supply chains that included neither a mill-owned plantation nor a third-party plantation. Most of the mills do not consider compliance with GHG emission indicators a priority, and some mills had insufficient knowledge to identify and calculate GHG emissions or to develop action plans to reduce greenhouse gas emissions on their plantation and in their operations.

(ii) Deforestation – Principle 2

The indicators included in Musim Mas’s deforestation sustainability principle are not applicable to the scope of palm oil mill operations. Rather, assessment and observation are only applicable to supply base management operations, including operations by mills that own and manage a plantation or engage third-party suppliers. Non-compliance on deforestation indicators are related to the identification and assessment of HCV and HCS area that had not been completed by mills or suppliers. Several mills have not yet conducted HCV and HCS identification in their own plantations and their parent companies’ plantations, but they intended to conduct such identifications and assessments as part of completing their sustainability certification programme. Meanwhile, the third-party suppliers are under no urgent obligation to identify HCV and HCS areas. Most of non-compliance on deforestation indicators existed among smallholders, including those involved in cooperatives or farmer groups or who are individual. Limited deforestation knowledge and funding for replanting are a constraint for third-party suppliers that cause planting activity to be done without considering important points in deforestation indicators.

Among mills that have already identified their HCVs are some that have not conducted HCV management and monitoring in the field to protect the designated areas. In one of the mills, the HCV assessment indicates that the mill area is located within the tiger (Panthera tigris Sumaterae) habitat range.

Of the assessed mills that perform new planting, none applies RSPO’s New Planting Procedure, because none of the six POMs are RSPO certified.

(iii) Management of Environmental Impacts – Principle 5

The mills’ non-compliance with environmental impacts management in mill operation is based on the environmental management and monitoring (UKL-UPL) report, which does not yet cover all ecological or social components in the management plan or environmental impact monitoring. Some mills have not yet implemented waste management that followed the companies’ own SOPs or government regulations consistently. Meanwhile, third-party suppliers are not yet prioritizing environmental
impacts management. Limited environmental impact knowledge and resources are a challenge to both mills and third-party suppliers.

(iv) Land tenure and legislation – Principle 1

The six POMs visited are not familiar with the Musim Mas sustainability policy and have not yet adopted it into their company policies (e.g., they are not yet including their commitment to RSPO principles and criteria and to business ethics). Moreover, several mills do not yet have an action plan to complete requirements identified in their corporate policy commitments.

The mills assessed generally met the land ownership and mill legislation indicator requirements, and mill compliance with local and national law and regulation was positive, although some mills have not been able to fully meet compliance on this indicator. In the scope of the supply base management operations, some plantations managed by mill management (mill-owned plantation) have not obtained cultivation rights (Hak Guna Usaha) for certain plantation areas despite palm oil plantation operations within the areas. Among third-party suppliers, most smallholder suppliers do not have ownership certificates; rather, they have Land Loss Certificates (Surat Keterangan Ganti Rugi Tanah) or Land Certificates issued by administrative villages or sub-districts. Non-compliance with land tenure and legislation indicators can also be linked to weak supply chain traceability, as FFBs cannot be identified.

(v) Social Compliance – Principle 7

Several mills created social programmes based on social impact assessments conducted in villages linked to mill locations. However, most mills provided social assistance based on requests or proposals from the head of the village in the absence of formal social impact assessments or participatory communication with village officials and surrounding communities.

Most of mills have not applied free prior and informed consent (FPIC) principles completely, although some mills have incorporated these principles into company policy and assessed their implementation. The mills that are facing ownership transition did not have the complete documentation to proceed with the land conflict resolution process.

Several mills need to improve employment practices regarding fulfillment of workers' rights, including working hours out of compliance with labor regulations and wages for non-permanent workers out of compliance with minimum daily wages as calculated by Ministerial Regulation PER-01 / MEN / 1999. Several mills do not have company regulations stating the terms of employment and corporate rules (Law No. 13 of 2003 on employment).

Some mills do not apply SOPs on occupational health and safety (OHS) or follow government regulations consistently, such as those that require provision of training,
assignment of OHS experts, provision of OHS facilities, and provision of personal protective equipment (PPE). One mill charged PPE to workers through a cost-cutting system attached to wages.

(vi) Supply chain – Principle 8

None of the assessed mills are able to provide a description of their FFB traceability system from source to smallholder or third-party suppliers. FFB traceability covers only to the registered supplier in the mill system (i.e., suppliers who have the delivery order, or DO). Most mills obtain FFB from third-party suppliers and from FFB agents, who carry the highest risk in FFB traceability. No assessed mill provided a mechanism to ensure third-party suppliers impose a ban on illegal purchases of FFB. Almost no mill could provide a programme to support smallholders in complying with the requirements of sustainable supply chain principles.

(vii) Development on Peatland – Principle 3

Four of the visited mills are not located in the peat areas. Two mills are in peat areas, and both have peat areas within the mill-owned plantation. Both mills have yet to conduct an in-depth study of these peat areas. Therefore, information on peat depth, peat maturity level, and organic matter content is unknown. Both mills implemented water management systems via canal with an open-loop system, but no written procedures related to water management are specifically developed for plants on peatlands. The non-compliance in this indicator is also related to the weakness of supply chain traceability, since FFBs could not be identified. The risk of non-compliance in peatland development is rising.

(viii) Use of fire – Principle 4

The use of fire sustainability indicator is only applied in supply base management operations. The level of compliance is found to be quite high because management of both mills-owned plantations and third-party plantations understood the ban on the use of fire as stipulated in the provincial regulation of South Sumatra Province No. 8 of 2016, Concerning Forest and/or Land Fire Control, where violation will be sanctioned with a maximum imprisonment of six months or a maximum fine of Rp. 50.000.000.

Each mill’s commitment level to sustainability depended on whether the mill is committed to a certification programme that includes sustainability principles, such as ISPO or RSPO. As it is mandatory for all mills in Indonesia to have ISPO certification, management must demonstrate its commitment through recruitment and/or improving its human resources capacity, as well as through investing in policy development and building programmes to create an environment where palm oil management activities are in line with sustainability principles.
3.2 Landscape-level Issues Identified

3.2.1. Profile of Regencies

The profile below is the result of a document review on Musim Mas priority regencies from year 2017. This document review was conducted by obtaining information from public domain sources, NGOs, and Google searches. The purpose of this regency profile is to provide an overview of Musi Banyuasin, Banyuasin, and Musi Rawas.¹

**Musi Banyuasin Regency**

“Musi Banyuasin Regency includes ±14,296 km² or 1,426,596 ha of administrative area. Just over 50% of the total area is forest, which is divided into 49,793 ha of conservation forest, 19,229 ha of protected forest, 98,897 ha of limited production forest, 418,177 ha of permanent production forest, and 127,585 ha mandated as conversion production forest (Dishut Muba 2013). Of the total forest area, more than 90% is production forest with conditions of current utilization under the Timber Utilization Licenses (IUPHHK): IUPHHK-HTI/Forest Plantation, IUPHHK-HA/Natural Forest, IUPHHK-HD/Village Forest, and forest area utilization rights (IPHHK) for oil and gas and coal exploration. A small part of the area is free.

So far, this large forest area has not been managed well. Rather than considering all aspects of sustainable development, emphasis has been put on economic productivity, resulting in relatively rapid deforestation and degradation that now reaches 49,468 ha/year of total forest area (HaKI, 2015). The degradation and deforestation are caused by land conversion for plantations, illegal logging, encroachment, and forest fire. These dynamics also align with poverty rates in and around the forest area. According to Badan Pusat Statistik/Central Agency on Statistics (BPS), the poverty rate in 2013 was 18.02% of a total population of 592,400 (BPS 2014), or approximately 106,632 residents. Additionally, overlapping permits between forest land classified as natural forest, protected areas, and other areas sow confusion and poor management.”²

**Banyuasin Regency**

“Banyuasin Regency is located in South Sumatra Province, at 1.30° – 4.0° south latitude and 104° 00’ – 105° 35’ east longitude, an area that lies in the central to eastern part of South Sumatra, with total area up to ±1.2 million ha. This geographical location makes Banyuasin a strategic area with some potential for trade, industry, and development in many new sectors. With Pangkalan Balai as the region’s capital base and a location in Jalur Lintas Timur/East Road, Banyuasin is Palembang’s growth area for industry. Given the additional advantage of the port of Tanjung Api-api, Banyuasin serves a very important role in the surrounding

¹² Biodiversity and Climate Change project (BIOCLUME) Maret 2016 by Haki (Hutan Kita Institute)
regencies as the center of the downstream industry (e.g., product distribution services of natural resources for agriculture, forestry, fishery, and mining).

The poverty rate in Banyuasin Regency decreased from 13.72% in 2009 to 11.27% in 2012.

According to the 2014 Minister of Forestry’s Decree (SK Menhut) No. 866, about forest and water management of South Sumatra Province, Banyuasin Regency has ±445,750 ha of forest area (37% of the total area) and ±749,800 ha of non-forest area or APL (62% of the total area). Water covers ±6,550 ha (1% of the total area). The most part of South Sumatra’s forest area is located within Banyuasin Regency; 48% of the total forest area (±217,820 ha) is Sembilang National Park (TNS), 14% (63,900 ha) is protected forest (HL), 20% (89,805 ha) is production forest (HP) and conversion forest (HPK), and 16% (74,225 ha) is wildlife sanctuary (SM).”

**Musi Rawas Regency**

“The western part of South Sumatra Regional Development area is Musi Rawas, a food storage area, plantation development area, energy development area, and a buffer zone of South Sumatra Province due to its Kerinci Seblat National Park (TNKS). The total area of Musi Rawas Regency is 1,236,583 ha. Geographically, it is located at 102° 07'00" – 103° 40'00" E and 2° 20'00" – 3° 38'00" latitude. This area is the strategic meeting point of the Musi and Rawas Rivers, of the Central Line across Sumatra (Jalur Tengah Lintas Sumatra) that connects Bakaheuni in Lampung and Banda Aceh, and of the inter-provincial (antar provinsi) highway linking the city of Palembang with Bengkulu, either through Sekayu or Lahat. Thus is Musi Rawas a center of economic growth, especially in the regency’s towns along the main road across Sumatra.”

**3.2.2. Mills’ Non-Compliances in Connection to Landscape Issues**

Many non-compliance issues were identified in the mill’s verification analysis results and document assessments per regency. The challenges faced by each mill are also reflected in the document review at the landscape level. Some of the major themes that emerge when considering both, mill verification and verification on the supply base can be summarized as follows.

(i) Ecology

Most ecology-related non-compliance indicators are identified among smallholders, including those involved in cooperative, farmer group, and independent smallholding operations. Based on field observation, some production areas of smallholders are located on peatland, as demonstrated by the construction of canals within production areas. Given smallholders’ limited resources, peat management of these production area still

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3,4 Biodiversity and Climate Change project (BIOCLIME) Maret 2016 by Haki (Hutan Kita Institute)

relied on conventional systems. Moreover, mills and their suppliers that have done new planting are not applying RSPO’s New Planting Procedure because they are not familiar with the NPP of RSPO.

One mill has already identified its HCVs; other mills have not yet conducted HCV management and monitoring in the field to protect designated HCV areas. In one of the mills, HCV assessment indicates that the mill area is located within tiger (Panthera tigris Sumaterae) habitat range.

- The forestry issues, potential, and opportunities that occur in mangrove, peat, lowland forests, and hilly upland areas resembled the problems, potential, and opportunities for forest ecosystems, conservation, and biodiversity in Indonesia writ large. The problems of forest conservation and biodiversity in South Sumatra are very complex, involving conversion of forest/land, illegal logging, forest fire, overlapping permits, and land conflict. Multiple stakeholders bring different interests and needs that must be aligned so that ecosystem sustainability and resilience can be maintained. Meanwhile, Musim Mas’s commitment to various national and international sustainability programmes is high enough, due to market pressures to improve the quality and resilience of the ecosystems, to foster green development.  

- Most of South Sumatra Province is forest area, with no less than 45% conservation area (protected areas, national parks, and wildlife reserves). These areas have high conservation value (HCV) and high carbon stock (HCS), resulting in companies’ need to identify HCV and HCS as part of land clearing requirements for oil palm and other commodities. Furthermore, management and monitoring of HCV and HCS areas are highly valued to maintain ecosystems’ quality and resilience.

- The remaining peat swamp forest in Musi Banyuasin and Banyuasin is an important habitat for endangered species such as the Senyulong crocodile and Sumatran tiger. Since 2011, the Indonesian government has published the Indicative Map for New Permit Suspension (PIPPIB), which is updated once in every six months.

The Presidential Instruction on New Permit Suspension and Governance Improvement for Primary Forest and Peatland has been revised three times since it was published; the first version is Presidential Instruction No. 6/2013; the second is Presidential Instruction No. 8/2015; and the third is Presidential Instruction No. 6/2017. As a follow-up on the latest version, on 31 July 2017, the Minister of Environment and Forestry issued a decree on the revision PIPPIB XII. Based on the instruction, all governors and regents/mayors must now refer to PIPPIB Revision XII if they want to issue a recommendation or new location. The latest peat moratorium is as follows:

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5 Biodiversity and Climate Change project (BIOCLIME) Maret 2016 by Haki (page 6)
PPIPPIB Musi Banyuasin dan Banyuasin

PPIPPIB Musi Rawas
(ii) Land Tenure and Legislation

Most smallholder suppliers do not have ownership certificates but rather hold Land Loss Certificates (Surat Keterangan Ganti Rugi Tanah) or Land Certificates issued by administrative villages or sub-districts. Non-compliance with land tenure and legislation indicators is linked to weak supply chain traceability, since FFBs cannot be identified, so the risk of non-compliance on land legality is high.

- Commonly, the types of land certificate that smallholders hold are SKGR and SKT. Most of the land they own was obtained from government’s transmigration programmes several decades ago. Smallholders expand their holdings by purchasing land from fellow farmers and migrants.

- Some assessments confirmed that conflict between mills and their surrounding communities were insignificant, although in areas where there are overlapping HGU permits and the transmigration areas conflicts can emerge. Musi Banyuasin, specifically, has large area of forest, yet its potential has not been well managed by paying attention to all stakeholders and the overlapping permits between IUPHHK with HGU. Legal certainty about right to land is difficult to achieve as most farmers in South Sumatra have owned their land since joining the transmigration programme, but in those cases in which their land overlaps forest areas, farmers struggle to proceed with obtaining the land certificate.

- Some mills have their own legal requirements, which they communicated to their suppliers, but do not have capacity or methods to verify the legality of FFB locations. At one time, suppliers had a good record in meeting FFB requirements; however, these covered only land legality and no deforestation. Mills that are located near protected areas have a very high risk of non-compliance with FFB sources, because traceability at the farm level is very low.

(iii) Social

Some of the assessed mills have developed social programmes based on social impact assessments conducted in surrounding villages. However, other mills provided social programmes based on requests or proposals from the head of the village, in the absence of social impact assessments and participatory communication with village officials and surrounding communities. Verification results in the field revealed compliance on social aspects related to the absence of the free prior and informed consent (FPIC) process.

- Palm oil plantation development in South Sumatra Province, especially in Musi Banyuasin, Banyuasin, and Musi Rawas, brings a positive impact to mills’ surrounding communities, as demonstrated in declining poverty rates described in the regency profiles above. Economic growth can and should be followed by an increase of public awareness about sustainability so operational management of plantations at the smallholder level will be sustained with equal attention to productivity and sustainability.

- Mill social programmes arranged through corporate social responsibility (CSR) programmes need to be evaluated according to each community’s needs. Some CSR programmes are
still based on individual community proposals instead of community need as ascertained collaboratively, which makes these programmes less effective.

(iv) Traceability

- No assessed mills could provide an FFB traceability system that traces the FFB source up to smallholder third-party suppliers. Rather, FFB traceability covers only up to the registered supplier in the mill system. Most mills obtain FFB from third-party suppliers from FFB agents, who carry the highest risk in FFB traceability non-compliance. Mills do not have a mechanism to ensure third-party suppliers impose a ban on illegal purchases of FFB.

- Traceability level basically depends on the type of supply based on delivery from FFB to mill. Some mills that receive FFB from their own plantations, from plasma, from other companies’ plantations, or from farmers’ plantation groups (group unions) can easily trace FFB up to its plantation or smallholder block. But for independent mills that rely entirely on FFB supplies from independent third parties, such as cooperatives, agents, or FFB traders, traceability only covers up to the suppliers’ level—which is listed in the mill system (trader, collector, or smallholder). In this case, it takes more effort to track the traceability of an agent or trader up to an FFB’s farmer.

3.3 Known Landscape-level Initiatives

Based on desk-review results from information gathered from the public domain, several relevant initiatives at the landscape level are identified to address some of the challenges described above. A brief overview is given below.

The first and most well-suited landscape-level initiative to be considered is the Sustainable District Platform (LTKL). This programme defines sustainable districts and relevant key indicators for measuring performance of these districts. This programme will provide support to Musi Banyuasin Regency to identify key factors for increasing revenue, reducing poverty, and reducing deforestation.

Another project worth considering is the Standard Operating Procedure (SOP) of Deforestation-free Smallholder Palm Oil Plantations. Serikat Petani Kelapa Sawit (SPKS), an organization that accommodates the interests of smallholders, initiated the development of a no-deforestation SOP for community-based palm oil plantations with Greenpeace Indonesia, as a guide to improving management of smallholder plantation development and eliminating deforestation as part of the development dimension of sustainable plantations. Sustainable plantation practices described in detail in the SPKS SOP provide information that is both simple and technical. Thus, methods for developing deforestation-free sustainable plantations should be easily understood and applied by smallholders.

The team recommends additional follow-up work, especially in the Musi Rawas Regency, to obtain a fuller picture of landscape initiatives in this region.
The profiles of initiatives or programmes identified in this diagnostic report are summarized in the following tables.

<table>
<thead>
<tr>
<th>Project</th>
<th>Partners</th>
<th>Goals &amp; Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sustainable Districts Platform (Lingkar Temu Kabupaten Lestari/LTKL)</strong>&lt;sup&gt;7&lt;/sup&gt;</td>
<td><strong>Govt</strong>: Government of Musi Banyuasin Regency and government personnel in Musi Banyuasin. <strong>CSO</strong>: Rainforest Alliance, Madani Berkelanjutan, Perkumpulan Sawit Lestari (PSL).</td>
<td>Regular annual Communication Forum of members hosted by selected Kabupaten. The forum will be used as experience exchange and showcase success and lessons learned. Compass workshop was held in Musi Banyuasin (MUBA) on 16 August 2017. The workshop was held to develop the Road Map and Action Plan for the MUBA Regency, which revolves around the theme &quot;Sustainable Regional Development in order to increase revenue (local revenue) and reduce poverty by decreasing deforestation rate.&quot; Regular forum to expand network of support for the Kabupaten working towards sustainable land-use. Donor, multilaterals, and potential financiers and partners can be invited. Partners network and the operational arm of Lingkar Temu Kabupaten Lestari will ensure all Kabupaten are connected through an integrated platform at the district and national level. This program will continue providing support to the Musi Banyuasin Regency to find key success factors for increasing revenue and reducing poverty and deforestation.</td>
</tr>
</tbody>
</table>

<sup>7</sup> Source: Rainforest Alliance – Landscape and Livelihood Division technical report

<sup>8</sup> Civil society organizations
<table>
<thead>
<tr>
<th>Standard Operating Procedure (SOP) of Deforestation-free Smallholder Palm Oil Plantation (<em>Perkebunan Kelapa Sawit Rakyat Bebas Deforestasi</em>)</th>
<th>CSO: SPKS (Serikat Petani Kelapa Sawit), Greenpeace Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td>In the future, smallholder palm oil management is expected to attend to sustainability involving smallholders. Support from government agencies, the private sector, and stakeholders is needed to provide incentives to smallholders to enable sustainable practices aimed at achieving increased production and productivity according to government target for existing available land.</td>
<td></td>
</tr>
<tr>
<td>Serikat Petani Kelapa Sawit (SPKS), an organization that accommodates the interests of smallholders, initiated the development of the no-deforestation standard operating procedure (SOP) for community-based palm oil plantations with Greenpeace Indonesia, as a guide to improving management of deforestation-free smallholder plantation development as part of the development dimension of sustainable plantations.</td>
<td></td>
</tr>
<tr>
<td>Sustainable plantation practices described in detail in this SOP provide information that is both simple and technical. Thus, the development of sustainable plantations and deforestation-free should be easily understood and applied by smallholders.</td>
<td></td>
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<thead>
<tr>
<th>Palm Oil Plantation Replanting of 4,400 Hectares&lt;sup&gt;10&lt;/sup&gt;</th>
<th>Govt: Musi Banyuasin Regent, Coordinating Minister for Economic Affairs</th>
<th>The palm oil rejuvenation program was inaugurated in October 2017 by the president of the Republic of Indonesia, Joko Widodo. The president targeted the palm oil community plantation can produce up to eight tons/hectare/year.&lt;sup&gt;11&lt;/sup&gt; The government will provide financial assistance up to IDR 25 million per hectare,&lt;sup&gt;12&lt;/sup&gt; superior palm oil seeds, and corn seeds for temporary production while farmers wait for palm oil yield. Moreover, for land legality, Widodo ordered the Ministry of Environment and Forestry (LHK) to support farmers who have land located in the forest. These farmers are to be excluded from the forest area and will be given a land certificate for free. A certificate in the palm oil rejuvenation program in South Sumatra is provided for 2,834 hectares for 1,308 households.&lt;sup&gt;13&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community Plantation Survey&lt;sup&gt;14&lt;/sup&gt;</td>
<td>CSO: SPKS (Serikat Petani Kelapa Sawit), Sahabat Muba, IDH</td>
<td>SPKS conducted a survey for smallholder plantations in Musi Banyuasin (Muba) Regency of South Sumatra Province in 2016 to determine the extent of smallholder practices in Lalan Regency. This survey was also targeted to get information on land aspects, financing, production facilities, sales to environmental aspects. The survey was composed of 80 questions; and given to 1724 farmers in nine villages.</td>
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</tbody>
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<thead>
<tr>
<th>IDH Green Growth Plan&lt;sup&gt;15&lt;/sup&gt;</th>
<th>CSO: IDH, ICRAF</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>IDH has developed a green growth plan at the provincial level, involving a multi-stakeholders coalition to foster its implementation. ICRAF will develop the plan through a multi-stakeholder approach. ICRAF’s plan starts with the modelling of different development scenarios of the land-based sector and economic, social, and environmental impacts. This process will be carried out through consultation and negotiation with the multi-stakeholder community and will be translated into a spatially explicit land-use plan with a detailed focus on the Musi Banyuasin and Banyuasin Regencies.</strong></td>
<td><strong>The plan will then support the stakeholders to develop priority areas for action, with objectives and targets of any intervention contributing to green growth, as well as policy changes that may be required.</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IDH landscape program – South Sumatra&lt;sup&gt;16&lt;/sup&gt;</th>
<th>Company: IDH</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protect the remaining forests through intensifying production and rehabilitating degraded land, reducing emissions by preventing peat and forest fires, and improving smallholder livelihoods by intensifying commodity production and improving farming practices.</strong></td>
<td><strong>South Sumatra Province spans almost nine million hectares and is home to endangered species such as the Sumatran tiger, while also being an important production area for globally traded commodities such as palm oil, timber, pulp, and rubber.</strong></td>
</tr>
</tbody>
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<sup>15</sup> IDH’s green growth plan in South Sumatra: [https://www.idhsustainabletrade.com/project/green-growth-plan-south-sumatra/](https://www.idhsustainabletrade.com/project/green-growth-plan-south-sumatra/)

<sup>16</sup> South Sumatra: [https://www.idhsustainabletrade.com/landscapes/south-sumatra/](https://www.idhsustainabletrade.com/landscapes/south-sumatra/)
This biosphere reserve program evaluates landscape values as the basis of investment in forest protection by linking the value of natural resources and potential risk assessment. According to Nasrun, South Sumatra became the first province in Indonesia to be selected to implement the model. The program provides a framework for describing and valuing the role of economics, social systems, and sustainable environmental strategies in any given landscape. Furthermore, this model can be used as a reference to decision-making processes in regard to planning and managing the landscape.

Sembilang National Parks and Dangku Wildlife Reserve are rich in biodiversity. Many species of flora and fauna are protected in this region, for example: crocodiles, turtles, and gibbons. The Sumatran tiger is the most famous.

Financing sustainable smallholder replanting includes objectives to (a) improve crop yields, (b) support sustainable practices, (c) increase smallholders income, and (d) reduce pressures on deforestation.

Many smallholders, especially independent smallholders, tend to delay replanting, because it requires continuous funding. For RSPO-certified smallholders, the initial process of replanting is difficult because the RSPO standards employ best practices in replanting to avoid environmental and social impacts.

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In May 2016, Asia Pulp & Paper Group (APP) and the Yayasan Belantara signed a memorandum of understanding (MOU) with South Sumatra’s government to support the provincial government to achieve green growth in South Sumatra. The agreement pertains until 30 October 2018 and is focused on developing sustainable landscape management, with particular focus on preventing forest fires in peatlands. Both APP and Belantara are also committed to becoming part of the donor committee to fund a landscape project in South Sumatra, which is managed by the Kemitraan Pengelolaan Lanskap (KELOLA) led by the governor of South Sumatra and supported by the Zoological Society of London (ZSL).

### 3.4 Recommendations for Musim Mas’s Intervention Priorities

The verification in South Sumatra was conducted as planned, with an objective of reviewing suppliers’ commitment to the Musim Mas sustainability policy. Field verification results on the six POMs show that the Musim Mas sustainability policy, in the form of questionnaires and policy documents, had been distributed to mills’ management headquarters. Since mill head offices distributed the new policy to mill field offices right before site verification, the six POMs visited were not familiar with the Musim Mas sustainability policy and had not yet adopted it into their company policies. Musim Mas needs to improve its communication methods to deliver the Musim Mas sustainability policy by directly communicating with Musim Mas’s suppliers who are responsible for implementing the policy, so they can better understand the principles of sustainability and develop programmes that can support the compliance of sustainability standards including, but not limited, to the Musim Mas sustainability policy. Communication should be encouraged to go both ways, by opening the opportunity for Musim Mas’s supplier sustainability staff to learn from Musim Mas’s experience in implementing sustainability programmes.

This diagnostic report contributes a solid foundation for Musim Mas involvement with its suppliers in 2018 and beyond regarding implementing critical requirements for sustainability. Verification findings are presented in sequence order from highest to lowest non-compliance

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percentage for the eight principles of Musim Mas’s sustainability policy: (1) greenhouse gas (GHG) emissions, (2) deforestation, (3) environmental impacts management, (4) land tenure and legislation, (5) social compliance, (6) supply chain, (7) peat management, and (8) use of fire. Non-compliance percentages are found to be highest in the three principles of greenhouse gas (GHG) emissions, deforestation, and environmental impacts management. FFB suppliers’ performance of these three principles showed zero compliance (diagram 02). To address major non-compliances and broader challenges at landscape level, Rainforest Alliance provides key recommendations for Musim Mas. Musim Mas shall consider which recommendations are best addressed by the company alone and which could be implemented through collaboration with existing landscape-level initiatives implemented by CSOs or the government of Indonesia.

1. To develop effective methods for each mill’s third-party suppliers, including bigholders and smallholders, and to identify HCV and HCS areas, as well as environmental and social impacts. Through a workshop program, identifying HCS and HCV areas and social impacts can be part of the material for FFB farmer suppliers.

2. To develop a database that provides information on FFB farms’ risk level related to non-compliance with Musim Mas’s policy principles for deforestation, conservation area, fires (hot spot), and peatland per administrative area (e.g., village or regency). This database is expected to be used efficiently by Musim Mas’s mill suppliers to identify the risk level of the third-party FFB suppliers and as a consideration in selecting third-party suppliers. This database will require collaboration from various parties, including but not limited to: local government to provide flexibility within the scope; local non-governmental organizations (NGOs) that can employ a personal approach; and other stakeholders, such as the mill and nearby communities. The data obtained from the Smallholder Plantation Survey, conducted by the Palm Oil Farmers’ Union (SPOM) and described in section 3.3 of this report, can be used to begin developing a database for each region. If this activity can be replicated in other areas, the profile of each area can be provided.

3. To develop a mechanism for mills to ensure third-party FFB suppliers can prove their commitment to prohibiting illegal FFB.

4. To facilitate a capacity-building event for Musim Mas suppliers’ staffs to support their capacity to bring their palm oil farms in line with sustainable palm oil management principles and the Musim Mas sustainability policy. This capacity-building agenda may involve inviting third-party FFB suppliers and farmers to workshops in several priority areas. The workshop for smallholders may be designed specifically to address sustainable smallholder palm oil plantations management. Referring to existing initiatives and programs, Musim Mas may work with SPKS and Greenpeace by adopting the SOP of Palm Oil Plantation as a workshop material and incorporating mechanisms developed by Musim Mas (see points 1–3 above) to be submitted to FFB suppliers.
5. To share experience in the development process of social policies and support of management and monitoring plan.

6. The programs that Musim Mas and its partners (government, consultant, and other stakeholders) have developed are tools to be used by MM mills and FFB suppliers. In the implementation stage, we recommend that a system be developed to monitor performance and development of each mill and FFB supplier. Assessment of mill performance can be accomplished through self-assessment. In this self-assessment, accuracy in completing necessary information is crucial, and random sampling of self-assessment verification is also important. These programs are recommended for ensuring all stakeholders in the Musim Mas supply chain keep their commitment to the sustainability principles.

7. To create, as a reference for mills and suppliers, a list of local, national, and international regulations related to palm oil farming and its social, employment, and environmental aspects. It is important to make the list of rules available and expect staff to know and understand them as they relate to the legality of the applicable laws and regulations at the local, national, and international level. The intended use of the list is to help mills more easily meet sustainability principle requirements.

8. To identify existing landscape-level initiatives that Musim Mas can actively contribute to and that seek to address some of the sustainability challenges related in this report. This report identifies two specific initiatives that merit serious consideration: the Sustainable Districts Platform and the Standard Operating Procedure (SOP) of Deforestation-free Smallholder Palm Oil Plantation.

Detailed technical recommendation for the implementation of Musim Mas's sustainability policy in 2018 and beyond are provided in appendix B.
Appendix A: Details of the Verification Observation

(i) Detailed data from the results of analyzing palm oil mill operations performance on each principle.
(ii) Detailed data from the results analysis supply base management operations performance on each principle.

![Graph showing compliance by principle]

<table>
<thead>
<tr>
<th>Principle</th>
<th>N/A</th>
<th>Major</th>
<th>Minor</th>
<th>Complies</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Land tenure and legislation</td>
<td>1</td>
<td>12</td>
<td>20</td>
<td>9</td>
<td>42</td>
</tr>
<tr>
<td>2 Deforestation</td>
<td></td>
<td>21</td>
<td>15</td>
<td></td>
<td>36</td>
</tr>
<tr>
<td>3 Development on peatlands</td>
<td>10</td>
<td>5</td>
<td>3</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>4 Use of fire</td>
<td></td>
<td>2</td>
<td>4</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>5 Management of environmental impacts</td>
<td>6</td>
<td>12</td>
<td></td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>6 Greenhouse gas (GHG) emissions</td>
<td>11</td>
<td>1</td>
<td></td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>7 Social compliance</td>
<td>1</td>
<td>21</td>
<td>40</td>
<td>22</td>
<td>84</td>
</tr>
<tr>
<td>8 Supply Chain</td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td>30</td>
</tr>
</tbody>
</table>

| Grand Total                              | 42  | 71    | 95    | 38       | 246   |
(iii) Detailed data from the results of the mill performance analysis related to palm oil mill operations by exempting indicators from principle 2 (deforestation), principle 3 (development on peatland), and principle 4 (use of fire).

<table>
<thead>
<tr>
<th>Mill ID</th>
<th>Compliance</th>
<th>Indicator Total</th>
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<tr>
<td>Grand Total</td>
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</table>
(iv) Detailed data from the results of the mill performance analysis related to supply base management operations by exempting indicators from principle 8 (supply chain).

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<th>Indicator Total</th>
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<tr>
<td><strong>Grand Total</strong></td>
<td><strong>12</strong></td>
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<td><strong>95</strong></td>
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Appendix B: Recommendations from Consolidated Verifications

The recommendations in appendix B arise from the consolidations of the six mill-site verifications described above. Appendix B recommendations supplement the "recommendations for Musim Mas’s priority intervention" presented in section 3.4, which covers recommendations at the landscape level. The recommendations in 3.4 were developed to address thematic issues at the mill level that mill management will take responsibility for improving. Appendix B is presented to provide considerations for Musim Mas when developing intervention programmes for the mill level.

Recommendations for the mills in the table below are classified as short-term actions (in bold) and long-term actions. The goal here is to help mills identify immediate actions that can be taken in the short term while developing measures for long-term action.
<table>
<thead>
<tr>
<th>Principle/Section</th>
<th>Mill Corrective Action</th>
</tr>
</thead>
</table>
| Land tenure and legislation | Several mills that do not complete the cultivation rights permit (HGU) and have areas within the concession area that overlap with the community area are recommended to:  
  - Develop a plan and complete the cultivation rights permit process by maintaining intensive communication with BPN to obtain sufficient and valid information related to the permit processes.  
  - Resolve land conflict by following FPIC process.  
  - Create a conflict chronology and record attempts to address issues and the results.  
Several mills that do not have the ISPO or RSPO certification or are in the ISPO or RSPO certification process are recommended to:  
  - Study the specific policies required by Musim Mas’s sustainability policy that can be combined with mill policy.  
  - Ensure that the mill policy is communicated to, understood by, and implemented by all stakeholders, including the FFB suppliers and mills’ business partners. |
| HCV and deforestation     | Several mills that have not undergone an HCV assessment must take the following steps:  
  - Conduct HCV assessments in each mill’s main plantation and plasma plantations and gradually conduct HCV assessments in the FFB source area in accordance with the latest HCV Toolkit.  
  - Ensure that HCV assessments are performed by an independent party using guidance from the High Conservation Value Resource Network (HCV RN). Currently, HCV RN is developing an integration guide with HCS.  
  - Conduct an analysis of land-cover changes since 2005 in the main plantation and plasma plantations and gradually conduct such analyses in the FFB source areas.  
Several mills that have not taken an HCS assessment need to take the following steps:  
  - Conduct HCS assessment in each mill’s main plantation and plasma plantation and gradually conduct such assessments in the FFB source areas in accordance with the latest HCV approach.  
  - Ensure HCS assessments are performed by an independent party using guidance from the High Conservation Value Resource Network (HCV RN). Currently, HCV RN is developing an integration guide with HCV and HCS. |
| Development on peatland | Several mills with plantation operational areas in peatland area must:  
| | • Conduct a detailed feasibility study related to the plantation in peatland areas prior to clearing land.  
| | • Conduct a detailed assessment of peatland identification through a complete map that includes the observation period and personnel and methods used. |  
| Use of fire | • Provide insight to suppliers, especially the third-party suppliers, regarding fire land preparation.  
| | • Conduct a series of meetings to increase third-party suppliers’ understanding and awareness about no-burn policies for land clearing and plantation operation. |  
| Management of environmental impacts | • Develop and implement programmes and activities to mitigate negative impacts on the environment from mills, plantations, and smallholders.  
| | • Fulfill all permit requirements related to environmental management based on government regulations, including but not limited to the permits for river water usage, wastewater disposal, and hazardous waste temporary storage sites. |  
| Greenhouse gas emissions | • Identify and calculate the GHG emissions emitted by the mill using a GHG calculator developed by either ISPO or RSPO.  
| | • Identify and calculate the GHG emissions from land conversion and management in all FFB suppliers using the GHG calculator developed either by ISPO or RSPO.  
| | • Write a report and action plan to reduce GHG emissions, either in the plantation or in the mill. |  
| Social compliance | • Conduct effective monitoring related to OHS.  
| | • Improve employment conditions related to fulfillment of the worker’s rights regarding minimum wage and working hours. Create corporate regulation that includes terms of employment and company rules.  
| | • Consult with surrounding communities that receive company social program/CSR. Such consultation is needed to obtain input and feedback about the social programmes needed by the community. |  
| Supply chain | • Ensure all third-party suppliers have contracts with each mill and include sustainability requirements in contracts.  
| | • Create a mechanism to conduct verification on the FFB origin based on what is required in the contract.  
| | • Develop a traceability system for the FFB that is obtained from each third-party supplier.  
| | • Create a mechanism to verify the FFB origin based on what is required in the contract.  
| | • Create a programme that supports plasma and third-party suppliers. |