



Projects in the Aceh Landscape

Report 2021/22



Introduction

Last year, we debuted our five-year strategy and roadmap for the Aceh landscape. The strategy, summarised in our [2020 Aceh progress report](#), details the objectives and targets for implementing our No Deforestation, No Peat, and No Exploitation (NDPE) policy.

The Aceh landscape strategy comprises three objectives, namely **Engagement, Assurance, and Monitoring and Response**. Firstly, the Engagement objective entails outreach to independent smallholders and mills to convey NDPE requirements and the possible consequences of non-compliance. The Assurance objective has components to ensure that the mills supplying crude palm oil and palm kernels to Musim Mas are NDPE compliant. Finally, the Monitoring and Response objective contains proactive elements to detect and verify deforestation at the landscape or jurisdictional level. All three objectives have a stated set of measurable

targets to indicate progress.

The strategy's scope involves Musim Mas' entire supply base in Aceh and covers 2020 until 2025. Since we do not operate any mills in Aceh, we are wholly reliant on third-party suppliers. Due to its unique biodiversity, history, and the fact that 87% of the Aceh-Leuser Ecosystem lies in the Aceh province, the landscape is a priority for us. The proximity to protected areas and ongoing deforestation alerts attest to Aceh's status as a high-risk landscape. With risks also come opportunities. Looking at Aceh through the lens of risk, we are able to prioritize and focus our efforts towards developing strategies to assess and mitigate risks surrounding our supplysheds.

Despite COVID-19, we have continued our efforts to implement our Aceh landscape strategy and have made significant headway since the [first edition of our report](#).



Impact of Covid-19 on our Aceh Strategy Implementation

Several aspects of our implementation plan in Aceh have been impeded by COVID-19 and associated movement restrictions. However, as the pandemic dragged out, delaying our plans became unfeasible. We have since learned to improvise how we engage our suppliers and have navigated our engagement efforts to digital platforms to ensure that our suppliers remain committed to and are compliant with our NDPE policy. Beyond our supplier engagement, we resumed our independent smallholders' training sessions. With heightened protocols limiting group sizes, that meant that delivery of training was pushed out at a steady but slower rate.

During the pandemic, the Indonesian Environment and Forestry data showed deforestation rates in the Leuser Ecosystem falling sharply by 81.76%, from 4'027.66 hectares in 2018/2019 to 734.81 hectares in 2019/2020¹. This fall in deforestation rate is a positive reflection of the strong commitment of the Indonesian government to prevent deforestation, and the drive of stakeholders, like Musim Mas, to push through with their NDPE efforts despite COVID.

¹ Steep decline of 81.76% in deforestation rate within Leuser Ecosystem. FORESTHINTS.NEWS. (2021). Retrieved 5 August 2021, from <https://foresthints.news/steep-decline-of-81-in-deforestation-rate-within-leuser-ecosystem/>

Figures of our progress in Aceh at a Glance



No Deforestation, No Peat, No Exploitation

100% of supplier mills are committed to NDPE.

16% of supplier mills are certified to RSPO standards or are members of the RSPO.

87% of supplier mills have completed Musim Mas' Self-Assessment Tool.

77% risk-based traceability conducted for Aceh.

RADD alerts: **16** potential deforestation alerts.

Smallholders Hub: **Aceh Tamiang and Aceh Singkil hubs operational.**
Announced a new partnership with Nestlé and AAK to establish an additional Smallholders Hub in Aceh.

Trained **148** village agricultural officers and **547** independent smallholders in the Smallholders Hubs

Data as of June 2021

How we use Risk Approach in our Aceh Strategy

While implementing our strategy in Aceh the last year, we gained better insights to determine supplier risks. Therefore, in September 2021, we released the [Musim Mas' No Deforestation, No Peat \(NDP\) Risk Management Framework](#) to improve our approach in assessing risks. We are currently field-testing the risk framework in Aceh.

The risk framework provides a more precise structure to assess the risk of non-compliance with No Deforestation and No Peatland requirements of our own operations and third-party suppliers (which includes mills, concessions, smallholders, and outgrowers), supplying our mills and refineries. Mapping out the risks allows us to focus our mitigation efforts towards high-risk mills by engaging suppliers to ensure NDP compliance². The onslaught of COVID-19 in the last two years has also forced us to recalibrate and focus our resources to where it counts most.

Throughout the report, we will show how the NDP Risk Management Framework helps provide clearer guidance on the implementation of our Aceh Strategy.

² Currently our risk framework does not include Exploitation risks, due to a lack of tools to assess our supply chain systematically. But we are working with partners to address this deficit and will adapt the framework accordingly.



Aceh Strategy



Figure 1: Musim Mas' Aceh Strategy

Objective A

Engagement



We reach out to independent smallholders and mills in key sourcing areas to inform and comply with NDPE requirements through Suppliers Workshops and our Smallholders Hub Program.

- Topics such as NDPE Policy, Traceability to Plantation (TTP), Self-Assessment Tool (SAT) requirements, capacity building, Good Agricultural Practices (GAP), financial literacy and certification requirements are covered.

In the first five months of 2021 alone, we have held three virtual webinars, engaging close to 85 suppliers, which includes suppliers outside Aceh province. As of June 2021, all Aceh suppliers have participated in Musim Mas' supplier workshops. 100% of our suppliers in Aceh have since committed to our Musim Mas NDPE policy, which is a significant achievement despite the pandemic. We trained 148 village agricultural officers and 547 independent smallholders across our two Smallholders Hubs in Aceh. In Tamiang, independent smallholders have been trained by village agricultural officers and assisted by our field assistants. In Singkil, our field assistants partnered with

Village Agricultural Officers to provide training to independent smallholders. In September 2021, we announced a partnership with Nestlé and AAK to establish an additional Smallholders Hub in Aceh. The newly established Smallholders Hub aims to engage 1,000 independent smallholders in the next two years. By the end of 2021, we aim to strengthen further the village agricultural officers' existing knowledge and skills. We aim to partner with village agricultural officers over at least the next two years in Tamiang and Singkil to provide training and conduct field visits.



Spotlight Story:

How COVID-19 impacted our engagement efforts for Suppliers and Independent Smallholders

For almost two years, the pandemic has been impacting several of our programs. Our usual regular supplier workshops have shifted online to become e-workshops. Suppliers in Aceh that used to join us in our physical workshops were now joining in our regular e-sessions online, where we have tweaked curriculum to better cater for e-learning experience. We have found ways to present information during workshops. We want to cover a broad spectrum of topics within a shorter timespan (compared to physical workshops) and still keep our suppliers' full attention. Hence, we created video tutorials on filling in the traceability and self-assessment documents.

During the pandemic peak in Indonesia, our Independent Smallholders (ISH) Team in Aceh Tamiang and Singkil had to follow strict protocols and ensure only small group training sessions were held. At times, trainings had to be delayed in compliance with the safety protocols and COVID-19 regulations in place, keeping the safety of all as the priority.

In Singkil, the COVID-19 protocol only allowed for a maximum of 10 people to attend a training session, as such the training of independent smallholders and village agricultural officers have slowed down considerably as we could only cover a limited number of smallholders and officers at each point in time. However, with the smaller group size, we were able to provide more personalized attention and advice to each individual.

We still conducted field visits on a one-on-one basis, albeit at a slower rate, taking into consideration the protocols and travel restrictions in place at different parts of Indonesia.



Targets in 2020	Progress on Targets	Aceh Tamiang	Aceh Timur	Aceh Singkil
<p>By January 2021, all supplying mills will commit to our NDPE requirements or have an equivalent policy or public commitments. Their Fresh Fruit Bunches (FFB) suppliers are informed and committed to the same NDPE commitments.</p>	<p>Achieved. 100% of supplier mills are committed to NDPE policy.</p>	<p>100% committed to NDPE policy.</p>	<p>100% committed to NDPE policy.</p>	<p>100% committed to NDPE policy.</p>
<p>Smallholders Hubs are established in Aceh Tamiang (by 2020) and Aceh Singkil (by early 2021).</p>	<p>Achieved. We have since established two Smallholders Hubs in Aceh. We are in the process of implementing more Smallholders Hub in Aceh, and have recently announced a partnership with Nestlé and AAK to engage 1,000 independent smallholders in the next two years.</p>	<p>Smallholders Hub: Trained 73 village officers and 475 smallholders. We established our Smallholders Hub in Aceh Tamiang in 2020. (refer more to our work in Aceh Tamiang below).</p>	<p>We intend to establish a Smallholders Hub in Aceh Timur. Learnings from Aceh Tamiang will be applied here.</p>	<p>Smallholders Hub: Trained 75 village officers and 72 smallholders. Musim Mas established a Smallholders Hub in Feb 2021 as part of a collaboration with General Mills. (refer more to our work in Aceh Singkil below).</p>

Objective B



Assurance

We ensure that the mills supplying CPO and/or Palm Kernel to Musim Mas are NDPE compliant. We do this through various methods:

- Traceability to Plantation
- Risk-based due diligence
- Our in-house verification teams



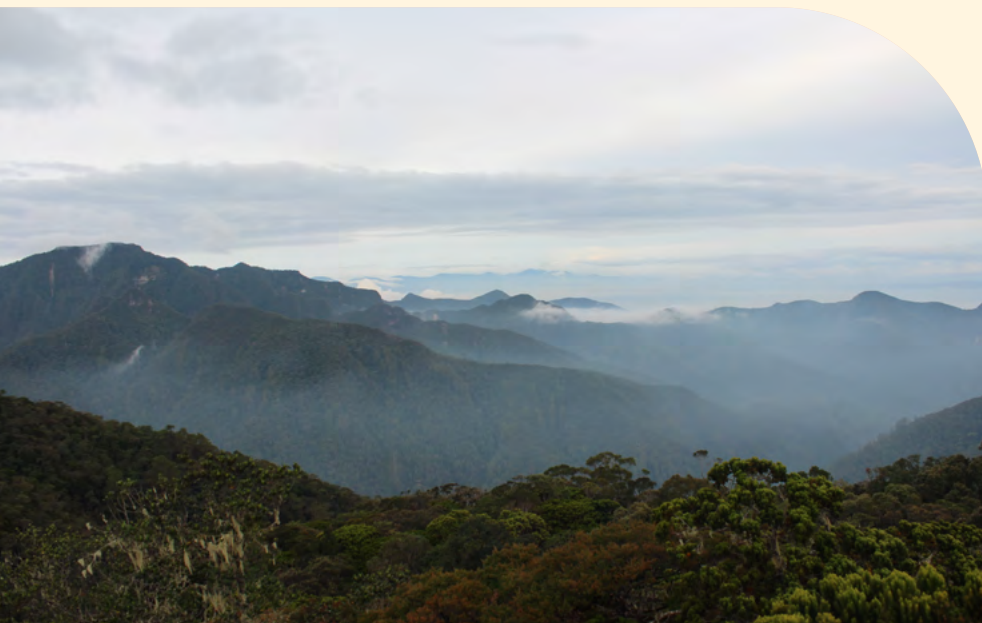
We will use the NDP Risk management framework to build on the Assurance component laid out in our Aceh Strategy. The new framework debuts with a more specific and detailed guide to assessing the risks of our third-party suppliers. Traceability to Plantation (TTP) provides an essential basis for identifying our exact supply sheds in Aceh. By identifying our supply sheds through the TTP methodology, we can determine the best approach to assess risks levels of the mills in our supply chain by analyzing any overlap or proximity to no-go areas (e.g., protected areas, peatland). Based on the information gleaned from the different approaches, we allocate a risk rating to all mills in our supply chain - low, medium, or high risk, and develop the appropriate mitigation efforts.

For **third-party suppliers of CPO and PK**, we obtain the concession data and corresponding shapefiles of nucleus plantations and, if available, geolocation data of smallholders and outgrowers to ensure that concession boundaries at a corporate group level do not overlap with designated conservation and peat areas. Where they do, we monitor the operations to identify and respond to any deforestation or peatland development. Third-party suppliers that are found to harvest or process fresh fruit bunches from inside conservation areas or from palms planted after cut-off dates in peat and forest moratorium areas are subject to immediate suspension or exclusion from our supply chain. Third-party suppliers implicated in deforestation may be allowed to re-enter our supply chain according to our [grievance procedure](#) or [Controlled Purchase Protocol](#) if they agree to stop clearing HCV areas, HCS forests, or development on disputed community lands and fulfill action plans to remedy the situation.

For **smallholders and outgrowers supplying our third-party mills**, we currently use three approaches to assess NDP risks, depending upon the availability of TTP data and the mapping of oil palm-planted areas. For more details, refer to the NDP Risk Management Framework [here](#).

However, we also know that traceability alone does not ensure NDPE compliance. Therefore, beyond Traceability data, we also obtain supplementary data information from mills, which we use to conduct our risk-based due diligence.

Targets in 2020	Progress on Targets	Aceh Tamiang	Aceh Timur	Aceh Singkil	Other Regions
Musim Mas will develop tools to conduct risk-based assessments for mills and their supply bases, identify higher-risk mills, and develop mitigation efforts. Verifications are carried out by a dedicated verification team and with a standard operating procedure (SOP).	<p>In progress We have developed new and improved approaches to conduct risk-based assessment and identify higher-risk mills as per our NDP Risk Management Framework.</p> <p>Verifications are in progress.</p> <p>77.42% risk-based traceability was conducted for Aceh.</p>	75% risk-based traceability conducted	75% risk-based traceability conducted	100% risk-based traceability conducted	<p>Aceh Barat: 100%</p> <p>Aceh Jaya: 0%</p> <p>Aceh Utara: 100%</p> <p>Bireuen: 100%</p> <p>Nagan Raya: 60%</p> <p>Subussalam: 50%</p>
Musim Mas ensures that TTP data from suppliers is collected and analyzed. A plausibility check methodology will be developed, and checks will be carried out.	<p>In progress We are in the process of developing a plausibility check methodology. We aim for the plausibility checks to be tested in Aceh supplysheds in 2022.</p>	In progress	In progress	In progress	In progress
Musim Mas actively supports the RADD platform in Aceh Timur, Aceh Tamiang, Aceh Singkil, Aceh Selatan, and Subulussalam. Musim Mas will also support field verification from the RADD platform.	<p>In progress 16 deforestation alerts were raised. Plans to roll out field verification pilots on these deforestation alerts in two districts of Aceh and one in Riau were hampered by the Covid pandemic. We expect the system to be operational by the end of 2021.</p>	RADD's monitoring and alerts verification system has been integrated into IDH's Verified Sourcing Area project since Oct 2020. Ground verification after receiving RADD alerts has begun in Aceh Tamiang (refer more to our work in Aceh Tamiang below).	There are preliminary discussions to expand the RADD pilot to Timur.	Plans to employ RADD to monitor Deforestation in Singkil is in preliminary discussions.	Nil



Objective C



Monitoring and Response

We proactively detect and verify deforestation at the landscape and jurisdictional level by:

- Monitoring deforestation through our internal GIS Analysis teams, EQ's platform, and reports by Leuser Watch, ME, other stakeholders.
- Supporting the artificial intelligence innovation (RADD) to detect the deforestation more accurately and in real time.
- Outreach programs to external stakeholders to collaborate and tackle issues on the ground.

Risk monitoring will also be used parallel to risk mapping, which can serve as a deterrent for possible deforestation and peat risks. A key element is satellite and radar monitoring, which we are involved in through several collaborations. We are working with Earthqualizer to ensure that mapped supplier concessions are continuously monitored. To address deforestation by smallholders and outgrowers, we

have partnered with other palm oil traders and consumer goods manufacturers to deploy a radar-based deforestation system, Radar Alerts for Detecting Deforestation (RADD). Our collaboration with Satelligence to conduct a satellite-derived baseline risk assessment in Singkil is another initiative that we have worked on and detailed below.

Targets in 2020	Progress on Targets	Aceh Tamiang	Aceh Timur	Aceh Singkil
Musim Mas will contribute to the first indicative HCV/HCSA landscape assessment in Aceh Timur.	In Progress	<p>We support a consortium of experienced NGOs and technical organizations under Yayasan Ekosistem Lestari (YEL) to partner in an integrated HCV-HCSA Landscape Level Assessment for Aceh Tamiang and Aceh Timur.</p> <p>The objective of the collaboration is to establish baseline information and cross-sector partnerships necessary for developing sustainable land use and commodity production plans in the districts of Aceh Tamiang and Aceh Timur. It uses jurisdictional-level HCV-HCSA methodologies as tools for analysis and engagement.</p> <p>Currently, the work is progressing with engagements of Aceh Provincial Government and workshops for stakeholders that will be involved in the assessment. The project is targeted to be finalized around Q3 2022.</p>		Nil
Musim Mas will leverage innovative satellite imagery analysis for prioritized villages, engaging communities, and extension work for smallholders.	In Progress	Musim Mas and other RADD funders (Radar Alert for Deforestation Detection) have selected Aceh Tamiang as one of its pilot areas. (see more below).	Nil	<p>Musim Mas collaborated with Satelligence to conduct a baseline data assessment to locate the planted areas of the smallholders and industrial plantations.</p> <p>Consequently, we will be employing RADD to monitor deforestation in Singkil.</p>

Our work in the various districts

Aceh Tamiang

Smallholders Hub: Trained 73 village officers and 475 smallholders

Since the establishment of our [Smallholders Hub in 2020](#), our field assistants have trained 73 village agriculture officers. Together, our field assistants and village officers have trained 426 smallholders, with a total hectare of 704. See Appendix A for a list of topics we teach smallholders and village officers.

RADD boosts the monitoring and verification capabilities of the Forest Management Unit

Musim Mas, along with other funders of RADD (Radar Alert for Deforestation Detection)³, has selected Aceh Tamiang as one of its pilot areas. As such, RADD's monitoring and alerts verification system has been integrated into IDH's Verified Sourcing Area project since Oct 2020.

World Resources Institute (WRI), the organization behind RADD, has developed a verification protocol to coordinate approaches after receiving alerts. The system is headed by the local Forest Management Unit (FMU or KPH 3), together with FKL, PUPL, Plantation Agency, and YAKATA.

Led by FMU, field verifications began in mid-June. Several high-profile forest clearances have been identified and will be slated to be followed up on. The response protocol is under discussion among the stakeholders in Aceh Tamiang and funders of RADD. The establishment of the Regional Monitoring Team by WRI is almost finalized, equipped with an official mandate from the provincial government.



³ The RADD (Radar Alert for Deforestation Detection) system uses Sentinel-1 data of 10m spatial resolution and 10 days temporal resolution to detect deforestation event. Radar imagery "sees through the clouds", which is important since many tropical forests are in cloudy regions.

DID YOU KNOW?

The Smallholders Hub in Aceh Tamiang is part of the VSA (Verified Sourcing Area) an initiative of IDH (Inisiatif Dagang Hijau [The Sustainable Trade Initiative in Indonesia]). This multi stakeholder partnership is leading the way in a collaborative project aimed at implementing the [Green Growth Plan](#) across commodities in Aceh.

The Aceh Tamiang Government has been instrumental in the project by providing support and establishing the PUPL (Pusat Unggulan Perkebunan Lestari) or Center of Excellence to ensure a smooth interface between the Government, private industries, smallholders, NGOs and other stakeholders. FKL (Forum Konservasi Leuser / Leuser Conservation Forum) has also been supporting the project and assisting with planning and implementation activities such as monitoring and patrolling the Leuser Ecosystem. The support from consumer goods companies, such as PepsiCo and Unilever, has helped advance the project.

Aceh Timur

Supporting existing programs in the area

Musim Mas will be supporting some projects in Aceh Timur as part of the IDH program.

There are preliminary discussions to expand the RADD pilot to Timur.

Aceh Singkil

Smallholders Hub: Trained 75 village officers and 72 smallholders

Musim Mas established a [Smallholders Hub in Feb 2021](#) as part of a [collaboration with General Mills](#). We trained 75 village agriculture officers and 72 smallholders with a total hectare of 160.

Despite COVID-19 restrictions, we managed to gain momentum in our Smallholders Hub because we stationed two field assistants in Aceh Singkil. This meant that they would not have to serve a stay-home notice every time they entered Singkil and could quicken the engagement process.

Training session on land legalization

Musim Mas and the Local Government held a session to highlight the importance of land legality to smallholders as part of our collaboration with General Mills. Together with the Local Government (Disbun), we spoke about the importance of land legality and planting permits for oil palm, such as land title certificates and Surat Tanda Daftar Budidaya (STDB) or Cultivation Registration Letter.

The STDB is essential in improving the sustainable management of smallholders oil palm farms. For example, the Director-General of Plantation issued a decree (No. 29/2017) that for smallholders to receive replanting support from the CPO fund, they would need to provide a valid STDB, among other documents and criteria to qualify.

Baseline study with Satelligence

We worked with Satelligence to provide us with baseline data of Singkil, which would help inform our implementation strategy in Singkil.

The Satelligence report gave us a precise picture of the planted areas and the historical land-use of villages surrounding the Rawa Singkil reserve. It also helped us identify areas that have been cleared and where oil palm by smallholders are planted. The detailed information will be useful for our Smallholders Hub to gauge the “penetration rate” of the village agricultural officers.

Supporting other existing programs in the area

Since 2018, Musim Mas has been funding Earthworm Foundation’s Aceh Landscape Program alongside other Coalition partners and funders. The program is now focused on three areas, which includes Aceh Selatan, Subulussalam, and Aceh Singkil.

This program aims to reduce deforestation and demonstrate the feasibility of balancing commodity production, conservation, and good social and labor practices at scale.

To accomplish this, the program focuses on three mutually reinforcing areas of work: integrated land use planning with



government, NDPE support and training for industry, and intensive capacity-building for communities on the forest frontier.

Indonesia had been hit hard with the third wave of Covid-19 outbreak towards the end of Q2 2021. However, as part of the landscape strategy, EF mobilized a permanent team to stay in the field to reduce travel as movements within the country were limited. Despite these challenges, meaningful progress on the work has taken place, including:

- Engagement with key plantation companies regarded by both local and international NGO’s as long-term deforestation actors;
- Holding multi-stakeholder workshops with representatives from local governments, central government, CSOs, communities, companies, universities, and media, where participants discussed topics on HCV/HCS, labor, and conflict resolution;
- Following socialization with local government, securing support to conduct Participatory Mapping (PM) and Land Tenure Study (LTS) workshops in the Subulussalam District.

Musim Mas will continue to focus on these key areas experiencing deforestation, labor, and social issues. We are in the process of extending our support for the Earthworm Foundation’s Aceh Landscape Program for an additional year.



Outlook for 2022

In the past year, despite the challenges put forth by the Covid-19 pandemic, we remained committed to achieving our targets and implementing our Aceh strategy.















For 2022, we will continue to pursue the objectives and targets alongside our suppliers and partners. Our goal is to achieve the following milestones one year from now:

- 95% TTP achieved across our entire Aceh supply base.
- 100% of high-risk mills in Aceh identified using the new NDP Risk Management Framework.
- RADD operational in one district.
- Preliminary indicative HCV/HCS map developed.



Sustainable Development Goals (SDGs)

Below, we have mapped out and identified how our efforts and programs in Aceh support the respective SDG goals and targets.

Sustainability Policy Pillar	Relevant Programs	How the program contributes to SDGs	Relevant SDG Target
 <p>Improve the Lives of Smallholders, Workers, and Communities</p>	<ol style="list-style-type: none"> Smallholders Hub in Aceh Singkil (in collaboration with General Mills) Smallholders Hub in Tamiang (as part of IDH's VSA project) IDH's VSA project Earthworm's APT program in Aceh Tamiang and Southern Aceh 	<ol style="list-style-type: none"> Smallholders Hubs in Aceh Singkil and Tamiang train independent smallholders to grow more sustainably and improve farm productivity. The aim is to empower independent smallholders to turn knowledge of Good Agricultural Practices (GAP) into action by giving them access to resources such as financial literacy and government subsidies for replanting. Smallholders are also taught to diversify their income sources such that their income levels are not vastly affected during replanting periods. Musim Mas' smallholder programs are known to take on a gender-sensitive approach by including female trainers, health and nutrition classes to attract female smallholders' attendance. More on the Smallholders Hub's curriculum in Appendix A. Musim Mas uses a train-the-trainers approach in the Smallholders Hub, training agricultural village agricultural officers (VAOs) to teach the smallholders in their area. This helps to build local capacity as well. IDH's Verified Sourcing Area (VSA) project aims to enhance the livelihoods of 1,000 smallholder farmers (via our collaboration and establishment of Smallholders Hub in Aceh Tamiang) and 500 community members. The project also aims to improve sustainable agricultural production on 13,000 ha beyond palm. The project has also secured local government commitment to improve sustainable production by 30%, reforestation, and certification of independent smallholders. More here. The APT program supports communities to develop sustainable livelihoods, among other activities. Musim Mas is a funder of this project. Earthworm uses a participatory mapping process known as Participatory Conservation Planning (PCP) to help villages map and define their land use per their own aspirations. To build their agricultural capacity, the APT Rural Support team leads the development of our supplementary livelihood pilot program. This is designed to help villagers build sustainable sources of income that, when combined with land use plans and education, can alleviate pressures on the forest. The team is working with several high-risk forest-frontier villages to create agriculture sites from land preparation through planting, cultivation, and harvest, thereby providing continuous training opportunities for villagers. More here. 	   <p>1.4 By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology, and financial services, including microfinance.</p> <p>1.5 By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social, and environmental shocks and disasters.</p> <p>2.3 By 2030, double the agricultural productivity and incomes of small-scale food producers, in particular women, indigenous peoples, family farmers, pastoralists, and fishers, including through secure and equal access to land, other productive resources and inputs, knowledge, financial services, markets and opportunities for value addition and non-farm employment.</p> <p>2.4 By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that help maintain ecosystems, that strengthen capacity for adaptation to climate change, extreme weather, drought, flooding, and other disasters, and that progressively.</p> <p>2.a Increase investment, including through enhanced international cooperation, in rural infrastructure, agricultural research and extension services, technology development, and plant and livestock gene banks in order to enhance agricultural productive capacity in developing countries, in particular, least developed countries.</p> <p>5.1 End all forms of discrimination against all women and girls everywhere.</p>
 <p>Deliver Positive Environmental Impacts</p>	<ol style="list-style-type: none"> Smallholders Hub in Aceh Singkil (in collaboration with General Mills) IDH's VSA project Earthworm's APT program Supplier Workshops across Aceh Traceability 	<ol style="list-style-type: none"> To prevent deforestation by smallholders, we have a robust monitoring system in place for Singkil (see Appendix B). The goal is to eventually train village extension officers and/or relevant stakeholders to be able to respond and verify the alerts. IDH's Verified Sourcing Area (VSA) project aims to conserve 230,000 HCV/HCS forest hectares. It has integrated World Resources Institute's (WRI) RADD monitoring and verification system for Aceh Tamiang. The project is also working with the Forest Management Unit to train locals on the RADD system. The APT project helps priority landscape actors to identify, map, manage and monitor HCV and HCS forest areas. The first of these efforts are focused in PT. Semadam, the company with the largest forest remaining inside any palm oil concession area in Aceh Tamiang district. As part of this process, Earthworm worked with nearby border villages to identify social issues connected to remaining forest areas and secure free, prior, and informed consent for HCV/HCS assessment-related activities. The goal and imperative are to achieve inclusive conservation of remaining forest areas. More here. Our supplier workshops address key topics on no-deforestation, such as identifying and managing the HCV/ HCS area and no new development on peatland. Using our Supplier Assessment Tool (SAT), we conduct a needs assessment of our suppliers against our NDPE (No Deforestation, No Peat, and No Exploitation) and sustainability policies. The topics comprise the protection, monitoring, and management of HCV and HCS areas, best management practices of peatland and other fragile soils, no-burning policy, reductions of greenhouse gas emissions. 	  <p>13.3 Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.</p> <p>15.2 By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally.</p> <p>15.5 Take urgent and significant action to reduce the degradation of natural habitats, halt the loss of biodiversity and, by 2020, protect and prevent the extinction of threatened species.</p>
 <p>Maintain Responsible and Enduring Relationships with Suppliers, Customers, and Stakeholders</p>	<ol style="list-style-type: none"> Supplier workshops across Aceh IDH's VSA project Smallholders Hub 	<ol style="list-style-type: none"> Since COVID-19, we have been conducting e-workshops to engage our suppliers. These e-workshops inform suppliers of our No Exploitation policy and commitment to respecting diversity and promoting gender equality as laid out in our Sustainability Policy. Our policy also complies with the ILO convention. IDH's VSA project drives market demand for its sustainable commodities in the landscape, including oil palm products. IDH works at the market end, especially in Europe, to drive the uptake of the sustainably produced commodities in the landscape. Our market convening work also creates a stronger business case for the companies to produce more sustainably. More here. Musim Mas actively seeks partnerships with international downstream companies such as consumer goods companies to build Smallholders Hubs and empower smallholders to plant sustainably. Musim Mas also collaborates with international financial institutions to improve financial literacy and access to banking products for smallholders. More here. 	    <p>5.2 Eliminate all forms of violence against all women and girls in the public and private spheres, including trafficking and sexual and other types of exploitation.</p> <p>8.8 Protect labor rights and promote safe and secure working environments for all workers, including migrant workers, in particular, women migrants, and those in precarious employment.</p> <p>12.7 Promote public procurement practices that are sustainable in accordance with national policies and priorities.</p> <p>17.16 Enhance the global partnership for sustainable development, complemented by multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology, and financial resources, to support the achievement of the sustainable development goals in all countries, in particular developing countries.</p> <p>17.17 Encourage and promote effective public, public-private, and civil society partnerships, building on the experience and resourcing strategies of partnerships Data, monitoring, and accountability.</p>
 <p>Drive Innovation in Sustainable Practices</p>	<ol style="list-style-type: none"> RADD monitoring and verification system 	<p>Musim Mas co-funded the development of RADD (Radar Alerts for Detecting Deforestation) with other private sector actors. RADD will make it much easier for companies and other stakeholders to see deforestation happening in near-real-time and with greater accuracy. With this information, they can more quickly mobilize follow-up actions on the ground and work to improve the sustainability of commodity supply chains. More here.</p> <p>It is currently piloted in Aceh Tamiang and is one of Musim Mas's tools in its monitoring system (see Appendix B).</p>	 <p>13.3 Improve education, awareness-raising, and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.</p>



Conclusion and Lessons Learned

Despite COVID delaying some of our implementation plans, our efforts have been ongoing. Although certain programs had to be pushed back due to travel restrictions, we used these setbacks as opportunities to recalibrate and develop tools to constantly improve our supplier engagement strategies, mapping out deforestation risks and internal processes.

Working in Aceh amid an ongoing pandemic has taught us a few lessons. Even during the pandemic, the need for consistent engagement with our suppliers and independent smallholders is vital. We must ensure that no suppliers or smallholders get left behind if we want to achieve NDPE compliance by 2025. The pandemic gave us new opportunities to explore moving traditional methods of holding physical supplier workshops or smallholder programs and training to digitalized platforms. To ensure we remain relevant in a post-COVID world and reach our 2025 NDPE targets, we must look at new ways of disseminating information, such as e-workshops and making training modules available online.

Now more than ever, the local government support has been invaluable, and we have been working closely together with them on several of our programs and initiatives. We want to further capitalize on our relationships with the local government, customers, technical partners, and NGOs to collaborate and integrate their efforts into our current projects with our suppliers and smallholders to achieve NDPE landscapes and districts. We believe that we are one step closer to a fully traceable, deforestation and exploitation-free supply chain.



Appendix A

Curriculum for Village Extension Officers and Independent Smallholders

We have developed a curriculum for the village extension officers and Independent Smallholders that consist of:

1. Good Agriculture Practices (GAP) training:

- A) Fertilizing management: How to maximize yield with appropriate fertilizer inputs and best management practices. Training can also include access to fertilizer suitable for the farmer's soil.
- B) Harvesting management: How and when to harvest oil palm such that the fresh fruit bunches (FFB) are of optimal quality.
- C) Integrated pest management: How to manage pests and reduce the number of pesticides used. Rather than merely eliminating pests now, farmers and field assistants investigate environmental factors that affect the pest and its ability to thrive. Conditions unfavorable for the pest can be created. Techniques include biological control, use of beneficial plants, modification of cultural practices, and use of resistant varieties.
- D) Upkeep: How to encourage proper crop growth through crop maintenance practices such as weeding and pruning.

2. Financial literacy:

How to apply business management skills, including financial planning, keeping expenditure records, and calculating profits and losses.

3. NDPE training:

What does No Deforestation, No Peat, No Exploitation mean, why is it important and what does it mean to farmers, such as alternative livelihoods.



Satellite Monitoring Tool

Musim Mas Geographic Information System (GIS) team



Earthqualizer Platform

Industry reference Business to Business monitoring platform

Radar Alerts for Detecting Deforestation

Innovative new system developed by WRI, Wageningen University, Satelligence High Accuracy and collaboration ground checks

Public Sources

We collect, update and crosscheck information using public sources such as GeoRSPO, Greenpeace Kepo Hutan, Global Forest Watch

Internal Monitoring

Our suppliers share maps and information about their supply base to establish Traceability to Plantation (TTP)

Our Geographic Information System (GIS) team uses a combination of methods to monitor our suppliers. These include internal monitoring of concession maps and information provided by these suppliers, relying on Earthqualizer's satellite monitoring platform (previously Aidenvironment's platform), and keeping track of supplier activity through public platforms such as GeoRSPO and the World Resources Institute's Global Forest Watch (GFW).

We are also part of the RADD (Radar Alerts for Detecting

Deforestation) system, a pilot multi-stakeholder platform with updated technical capabilities that allows us to detect tropical deforestation in less time. Through these platforms, we are able to monitor over six million hectares across Indonesia and Malaysia. We work with WRI's pilot RADD system to work on the satellite monitoring alerts and verification work on the ground.

For more information regarding the Radar alerts for detecting deforestation program, please refer [here](#).



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