SUSTAINABILITY REPORT 2021

Business Excellence for a Sustainable Future
Our Clonal Oil Palm Production Unit (COPPU) located in Pangkalan Kerinci, Riau, where we produce superior planting materials through various tissue culture techniques.

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About this Report
Our Commitment to Transparency Through Sustainability Reporting
102-49, 102-51, 102-52

At Asian Agri, we have long believed in the importance of maintaining the highest standards of sustainable palm oil production. As a major player in the palm oil industry, we endeavour to set a high standard nationally across the industry and present ourselves as a company that is reliable, responsible and sustainable to all our stakeholders. We also believe in the role of palm oil to encourage sustainability and inclusive development in Indonesia.

We are committed to investing in and improving our environmental, social and governance (ESG) performance year-on-year, as well as reporting on our commitments, progress and challenges in a transparent and timely manner. Since 2015, we have published a sustainability report every two years to communicate our progress towards implementing our sustainability commitments. Our last report published in 2021 cover our operations in 2019-2020. Starting from this year onwards, as part of our efforts to strengthen transparency, we have decided to move to an annual sustainability reporting cycle.

This sustainability report is our fifth report. Its contents have been refreshed and updated after a materiality assessment conducted in 2021. More information on our materiality assessment can be found on pages 81-82.

Boundary and Scope of this Report
102-7, 102-50

This report covers our activities between January to December 2021 from across our operations and activities in the following sites and geographic areas:

Our Sites

22 mills
10 kernel crushing plants (KCPs)
10 biogas plants
30 of our own estates

Geographic Areas

North Sumatra
Riau
Jambi

Reporting Framework
102-54

The report has been prepared in accordance with the Global Reporting Initiative (GRI) Standards: Core option. The GRI Standards set out the principles and disclosures that organisations can use to report on their ESG performance. We have applied the GRI principles of report content and report quality.

For a full list of disclosures referenced in this report, please refer to the GRI Content Index on pages 85-89.

External Assurance
102-56

As with previous years, we have engaged with an independent third-party assuror (SGS Indonesia) to provide assurance for the credibility of information and data provided in this report. The assurance was conducted according to the GRI Standards (Core Option) 2016 and AA1000 Accountability Principles Standard (2018). Please refer to pages xxx for the assurance statement and scope of data assured.

Point of Contact
102-53

We value your opinion as part of our continuous effort to improve and meet stakeholder expectations. Contact us here to provide your comments and feedback on any aspect of our approach to sustainability or reporting.
I am excited to announce the launch of our new Asian Agri 2030 (AA2030) commitment. This bold ambition of ours is part of a pledge made together with the larger group of RGE companies to focus specifically on our contribution to the UNSDGs, building on our current efforts in line with our NDPE policy.

There are four main areas of focus for AA2030, which includes both internally and externally-focused goals. For each of these areas, we have set bold and clear targets to be achieved by 2030:

- **Smallholder Partnership: Improving Yield and Sustainability Performance**
  Almost 60% of our production currently comes from plasma scheme and independent smallholders. As our close partners for last 32 years, smallholders have been the cornerstone of our business success and a key player in our sustainability journey. Thus, we will continue to provide them with the best agronomic practices and high-quality replanting materials to replace their ageing palms - something that we have been doing for the last five years. By 2030, we hope to double their income and have 100% of them complete our replanting program. Currently, we have been able to maintain our RSPO, ISSC and ISPO sustainability certifications for our own estates and plasma scheme smallholders. Moving forward, we look forward to helping all of our independent smallholders achieve ISPO certification and have a further 5,000 achieve RSPO certification. As a testament to our years of achievement in this area, we were featured this year by Grow Asia as a case study on effective smallholder partnerships in Asia’s food sector.

- **Climate Positive: One-to-One Restoration Ecosystem and 100% Renewable Energy**
  Our eventual goal is to be climate positive and we believe that forest conservation is a key strategy for us to achieve this. By 2030, we aim to reach net zero emissions from land use by restoring and conserving 100,000 hectares of degraded land for every 100,000 hectares of planted land. We are confident in our ability to achieve this bold target, drawing from our past experience working on our one-to-one commitment for smallholders where we matched each hectare of our own plantations with one owned by smallholders - a target we were able to achieve in 2018.
  By 2030, we will adopt 100% renewable energy by increasing the use of alternatives, such as solar power, and by optimising energy efficiency. In addition, we will continue building more methane capture facilities for our mills.

- **Responsible and Sustainable Production**
  Lastly, we will continue our efforts to strengthen accountable, responsible and sustainable conduct across our operations. We will continue our commitment to no land use change for plantations, focusing instead on intensification of our land use and adopting best practices in sustainable farming. By 2030, we also aim to reduce pesticide use by 50%.

These bold ambitions in AA2030 reaffirm our founder’s SC philosophy of doing good for the Community, good for the Country, good for the Climate, providing good quality and safe products for our Customers, and only then will our actions be good for the Company.

We also continued our work to minimise the spread of COVID-19 both internally and in the local community. After our vaccination rollout efforts, I am proud to say that Asian Agri is now 100% vaccinated, all the way from our workforce, senior employees at headquarters to the plantation workers and their families. We also continue to provide local communities with masks, personal care packages, handwashing facilities, oxygen apparatus, PPE and other necessities to fight the pandemic.

For each of these commitments, we are happy to share our progress and achievements so far.

**MD Kelvin Tio**

Managing Director
About Asian Agri

Asian Agri at a Glance

Asian Agri is one of Asia’s largest palm oil producers, with an annual capacity of around 100,000 hectares of oil palm plantations producing one million tons of crude palm oil (CPO). With a long history of over 30 years in operation, we now own and operate 30 of our own estates along with 22 mills and 10 kernel crushing plants (KCPs). Headquartered in Medan, North Sumatra in Indonesia, we have emerged to become one of the leading national private companies that produce certified sustainable palm oil.

We are a group of private limited companies with operations in seedling, planting and processing of fresh fruit bunches (FFBs), as well as the production of sustainable palm oil in our mills. Our CPO caters for the domestic market, as well as Asian and European markets.

In 2021, we added waste and residue oil recovery facilities to 10 of our mills, and are proud to share that 100% of our mills are equipped with these facilities. There were no further changes in terms of size, structure or ownership in our business.

Our Operations in 2021

- 22 mills, 100% of mills equipped with waste and residue oil recovery facilities
- 30 nucleus estates
- 21,034 people in our workforce

Our annual capacity

- Mills: 1,205 tons FFB / hour
- KCPs: 1,100 tons PK / day
- Biogas Plants: 20 MWh Potential capacity of electricity

Planted area (Ha)

- 93,879 Own estate
- 52,893 Plasma scheme smallholders
- 42,319 Independent smallholders involved in our smallholder empowerment programme

Our production

- Total CPO: 1,070,247 MT
- Total CPKO: 131,951 MT
- Yield: 5.51 MT CPO/ Ha

Our Subsidiary Companies

Our parent company is PT Inti Indosawit Subur, which operates a total of 12 subsidiaries.

North Sumatra
- PT Nusa Pusaka Kencana
- PT Supra Matra Abadi
- PT Indo Sepadan Jaya
- PT Rantau Sinar Karsa
- PT Andalas Intiagro Lestari
- PT Hari Sawit Jaya
- PT Saudara Sejahtera
- PT Mitra Unggul Pusaka

Riau
- PT Inti Indosawit Subur
- PT Riganas Agri Utama
- PT Tunggal Yunus Estate

Jambi
- PT Dasa Anugerah Sejati

Our Value Chain

Our fresh fruit bunches (FFB) are sourced from our own estates, plasma scheme smallholders and independent smallholders. The FFB is then delivered to 22 of our crude palm oil (CPO) mills, and most of the palm kernel (PK) produced is delivered to our kernel crushing plants (KCP). We also have 32 third party KCP suppliers. All CPO and crude palm kernel oil (CPKO) produced, markets in Asia and Europe.

For more information on our suppliers, refer to our supply chain map. For more information on how we ensure supply chain traceability, refer to pages 27-28.

Our Business Growth

Over the years, we have continued to expand our operations.

Numbers of mills, KCPs, biogas plants and own estates

<table>
<thead>
<tr>
<th>Region</th>
<th>Mills</th>
<th>KCPs</th>
<th>Biogas Plants</th>
<th>Own Estates</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Sumatra</td>
<td>8</td>
<td>2</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Riau</td>
<td>10</td>
<td>5</td>
<td>3</td>
<td>10</td>
</tr>
<tr>
<td>Jambi</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>22</td>
<td>10</td>
<td>10</td>
<td>30</td>
</tr>
</tbody>
</table>

CPO Production (MT)

<table>
<thead>
<tr>
<th>Year</th>
<th>CPO Production (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>1,070,247</td>
</tr>
<tr>
<td>2020</td>
<td>1,056,218</td>
</tr>
<tr>
<td>2019</td>
<td>1,121,197</td>
</tr>
</tbody>
</table>

CPKO production (MT)

<table>
<thead>
<tr>
<th>Year</th>
<th>CPKO production (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>131,951</td>
</tr>
<tr>
<td>2020</td>
<td>137,138</td>
</tr>
<tr>
<td>2019</td>
<td>139,142</td>
</tr>
</tbody>
</table>
Asian Agri's Milestones Over the Years

1979
- Acquired 8,000 Ha landbank in North Sumatra

1983
- 1st palm oil mill in Gunung Meliyu

1987
- Pioneered plasma scheme in Riau and Jambi

1989
- Established state of the art R&D centre

1991
- Successfully developed and handover 1st plasma estate

1994
- Implemented zero burn policy

2006
- Became an RSPO member

2005
- Setting up the QPRRS: Seed producing facilities

2003
- No more new developments & land expansion

2002
- Established Planters School of Excellence

1996
- R&D centre successfully produced TOPAZ 1, a superior seed variety which can produce higher yields

2007
- Set up tissue culture lab to clone oil palms

2012
- Produced more than 1 million MT Crude Palm Oil
- Launched our independent smallholders programme in North Sumatra, Riau and Jambi

2013
- Biggest ISCC & RSPO smallholders in Indonesia
- Achieved 100% ISCC certification for own estates
- Developed a Sustainability Policy which sets out our commitments to NDPE

2014
- Achieved 100% ISCC certification for smallholders

2018
- Kick start independent smallholders replanting
- Fulfilled our ‘One to One’ (1:1) partnership commitment
- Achieved our first ISPO certificate for a plasma scheme smallholder
- Commissioned 2 more biogas plants and 3 more KCPs

2017
- Independent smallholders become the 1st ISPO certified - Amanah Association
- 100% RSPO certified plasma smallholders plantations

2016
- Launched FFVP in all 3 provinces

2015
- Launched first traceability verification programme for independent smallholders in Jambi
- Commissioned 5 biogas plants and 6 KCPs

2019
- Achieved 100% ISPO certification for our own estates
- Stopped using paraquat in all of our own estates
- Commissioned 3 more biogas plants
- Completed FFVP Traceability to Plantation project

2020
- Carried out SDGs prioritisation exercise, to integrate with our approach to sustainability
- Commissioned 1 more mill and 1 more KCP

2021
- Asian Agri’s smallholder partnership was featured by Grow Asia as a case study to demonstrate alignment with ASEAN RAI

2022
- Launched Asian Agri 2030, our ambitious sustainability targets for 2030
Our Purpose, Vision and Core Values

We are guided by our purpose to improve lives by developing resources sustainably, in order to achieve our vision of being one of the largest, best manages and sustainable palm oil companies, which creates value for wider society. To accomplish this, we believe in the importance of adopting our TOPICC core values in all our actions and behaviours across the company.

Our Vision: To be one of the largest, best-managed and sustainable palm oil companies, generating value for the Community, Country, Climate, Customer and Company.

Our Purpose: Improving lives by developing resources sustainably

Our Core Values (TOPICC)

**OUR WAY**

**OWNERSHIP**
We take ownership to achieve outstanding results and seek value at all times.

**PEOPLE**
We develop our people to grow with us.

**INTEGRITY**
We act with integrity at all times.

**CUSTOMERS**
We understand our customers and deliver real value to them.

**CONTINUOUS IMPROVEMENT**
We act with zero tolerance and always strive for continuous improvement.

For more details on our approach to sustainability, go to pages 13-23.

Corporate Governance

Business Ethics 102-16

Asian Agri is committed to the highest standards of business ethics across our operations.

As a member of RGE Group, all of our employees must adhere to Our Code of Conduct which provides our employees and suppliers with guidelines on acceptable and unacceptable behaviour. This includes, but is not limited to, standards on anti-bribery, anti-corruption, and anti-fraudulent practices, as well as our policies towards no burning, protection of workers' welfare, promoting equal rights, and zero tolerance in child labour, sexual harassment and violence in our workplaces. All employees receive refresher training on our Code of Conduct adopted as Company's Policy (Kebijakan Perusahaan) at least once a year. It is also printed and displayed at our offices and critical locations in our operations.

No confirmed incidents of corruption occurred in 2021.

Grievance Procedure

Employee who wants to raise any concerns can do so via our grievance procedure, of which the details can be found on page 23.

Our Approach to Sustainability 102-11

The Importance of Sustainable Palm Oil

The palm oil industry is a major contributor to the Indonesian economy and a key strategy in the nation’s plan for long-term economic growth and rural development. However, the intended benefits of the palm oil industry can only be realised if managed sustainably. Over the years, the rapid expansion of palm oil and irresponsible and unsustainable palm oil production has unfortunately led to environmental degradation, in particular deforestation and biodiversity loss. Communities have also been impacted when their land rights have not been respected, and workers in the industry have not been protected due to poor labour standards.

That said, we believe that compared to other vegetable oils, palm oil still makes the most efficient use of land and plays a key role in meeting the growing demand for vegetable oil if produced in a sustainable manner.

Therefore, we are committed to strict environmental, social and governance (ESG) performance in our operations. We are focused on conserving the environment and protecting the rights of our workers and local communities, whilst allowing the potential of the palm oil industry to lift millions out of poverty in Indonesia.
In line with our wider vision, purpose and core values, we developed our Sustainability Policy to position sustainable business practices at the core of our operations. Our Policy also sets out our commitments to ‘No Deforestation, No Peat and No Exploitation’ or NDPE. As a palm oil grower and miller, we believe that maintaining these high standards – which extend to all our companies and smallholders – are crucial for us to be a reliable, responsible and sustainable producer of quality palm oil.

Our Sustainability Policy

We regularly review our material sustainability topics to ensure that they remain relevant to the business and our stakeholders. In 2021, we conducted a materiality assessment to update our material sustainability issues. Details of our assessment can be found on page 81-82.

We have identified the following material issues as key sustainability risks and opportunities for our business. For issues indicated as ‘high priority’, we are committed to focusing greater efforts in managing these issues. We implement policies, initiatives and programmes to improve performance in all our material issues, which will be detailed in the rest of the report.

Positive socio-economic impact for people, smallholder and the community
- Respect universal declaration of human rights and promote equal rights.
- Respect the right of all workers to become the member of labor union.
- Provision of a safe and healthy working environment and practicing a fair treatment policy, including those of contract, temporary and migrant workers.
- Inclusion of smallholders, outgrowers and third-party suppliers in our supply chain.
- Respect and recognize the rights of the indigenous and local communities on Free, Prior and Informed Consent (FPIC) of land which they hold legal, communal or customary.
- Ensure food security of local community.
- Develop a transparent grievance mechanism system.

Protection of Peatland
- No new development on peatland
- Implementation of Best Management Practices for existing peatland estates
- Explore options for long-term restoration or alternative use, if existing peat areas are found unsuitable for replanting.

No Deforestation
- No Deforestation Conservation of HCS areas for new development
- Conservation of HCV areas
- GHG emission monitoring and reduction
- Zero burning policy
Since the launch of the United Nations Sustainable Development Goals (SDGs) in 2015, Asian Agri has been working towards making a meaningful contribution to this global agenda. In 2019, we mapped and prioritised the SDGs we believe we can make the most significant contribution towards, while ensuring we also help advance and do not hinder progress on the other goals.

This year, we have developed AA 2030 – Asian Agri’s new sustainability strategy, underpinned by KPIs and targets, which align our overall approach to sustainability with the SDGs.

Asian Agri 2030 - Our Contribution to the SDGs

Since the launch of the United Nations Sustainable Development Goals (SDGs) in 2015, Asian Agri has been working towards making a meaningful contribution to this global agenda. In 2019, we mapped and prioritised the SDGs we believe we can make the most significant contribution towards, while ensuring we also help advance and do not hinder progress on the other goals.

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### Material topics

**Description**

<table>
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<tr>
<th>Topic Boundaries</th>
<th>Internal Stakeholders</th>
<th>External Stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fire Prevention and Management</strong></td>
<td>Preventing the occurrence of forest fires by working closely with the community and strengthening fire prevention capabilities, as well as responding swiftly when fires occur within our own and our suppliers’ plantations.</td>
<td>Company Employees, Smallholders</td>
</tr>
<tr>
<td><strong>Sustainable Supply Chains</strong></td>
<td>Ensuring responsible sourcing practices by creating a traceable supply chain, as well as monitoring and engaging suppliers to meet high sustainability standards</td>
<td>Company Employees, Smallholders</td>
</tr>
<tr>
<td><strong>Smallholder Empowerment</strong></td>
<td>Empowering smallholder partners to increase productivity gains, strengthen their sustainable farming practices, and improve their livelihoods</td>
<td>Company Employees, Smallholders</td>
</tr>
<tr>
<td><strong>Occupational Health and Safety</strong></td>
<td>Preventing any work-related fatalities, injuries and illnesses by promoting a safe and healthy work environment</td>
<td>Company Employees, Smallholders</td>
</tr>
<tr>
<td><strong>Biodiversity and Conservation</strong></td>
<td>Identifying, conserving and managing areas of land and forests of high Conservation Value (HCV) and High Carbon Stock (HCS). This includes peatland management, establishment of riparian zones, and preventing habitat loss to protect biodiversity.</td>
<td>Company Employees, Smallholders</td>
</tr>
<tr>
<td><strong>Human Rights and Workers’ Welfare</strong></td>
<td>Protecting the rights of all workers in our operations and supply chain by ensuring fair and favourable working conditions. This includes the prohibition of any form of forced and child labour ensuring freedom of association and collective bargaining, and providing equal opportunities for all regardless of individual backgrounds, respecting the rights of indigenous and local communities, including the right to give or withhold their Free, Prior and Informed Consent (FPIC).</td>
<td>Company Employees, Smallholders</td>
</tr>
<tr>
<td><strong>Corporate Governance</strong></td>
<td>Ensuring the highest standards of corporate governance and conducting business activities with integrity and free from corruption</td>
<td>Company Employees, Smallholders</td>
</tr>
<tr>
<td><strong>Energy and Carbon Management</strong></td>
<td>Contributing to climate action by reducing GHG emissions across our business operations. This includes increasing our renewable energy use, methane capture, reducing energy consumption and conserving forests</td>
<td>Company Employees, Smallholders</td>
</tr>
<tr>
<td><strong>Resource Use</strong></td>
<td>Minimising the use of resources, including the efficient consumption and responsible management of water and waste</td>
<td>Company Employees, Smallholders</td>
</tr>
<tr>
<td><strong>Community Development</strong></td>
<td>Empowering local communities through community development programmes providing improvements in infrastructure, education, health and cultural engagement</td>
<td>Company Employees, Smallholders</td>
</tr>
<tr>
<td><strong>Pesticides, Fertilisers and Chemical Usage</strong></td>
<td>Responsible managing the use of pesticides, fertilisers and other chemicals to minimize contamination of land (soil) and water</td>
<td>Company Employees, Smallholders</td>
</tr>
<tr>
<td><strong>Employee Attraction, Management and Retention</strong></td>
<td>Ensuring our talent pool is motivated, skilled and productive by training and developing our employees, as well as providing competitive benefits and remuneration</td>
<td>Company Employees, Smallholders</td>
</tr>
</tbody>
</table>

### Asian Agri 2030 - Our Contribution to the SDGs

**Smallholder Partnership**

- Intensive Engagement with Smallholders for Better Livelihoods
- **Inclusive Growth**
  - Encourage Strong Participation to Achieve Best Quality of Life
- **Climate Positive**
  - Promote Sustainable Palm Oil through Best Management Practices
- **Responsible & Sustainable Production**
  - An Integrated Course of Actions to Establish Sustainable Product

### Targets

- **Double smallholder income through modernisation program**
  - 100% completion of smallholders’ modernisation program
- **Zero extreme poverty surrounding our operational areas**
  - Establishment of medium enterprise that covers more than 500,000 ha
- **Net Zero**
  - Emissions from land use
- **Pesticide reduction**
  - 100% reduction of all pesticides used
- **5,000 indentured smallholders to be RSPO certified**
  - 100% renewable energy for our operations
- **100% reduction in the use of non-renewable energy for our operations**
  - Reduce 50% pesticide usage

Legend: High priority topics | Important topics
To implement our sustainability policy and AA2030 commitments and targets, we rely on the following priorities:

1. Sustainability Governance
2. Stakeholder Engagement
3. Certification and Memberships
4. Research and Development (R&D)
5. Grievance Procedure

Our Managing Director is responsible for overseeing Asian Agri’s business, including providing oversight to the company’s sustainability commitments and NDPE policy implementation.

We conduct regular meetings to keep our Managing Director up to date on Asian Agri’s sustainability issues, such as the status of certifications, progress on projects and monitoring of performance.

Implementing our Sustainability Commitments

1. Sustainability Governance

Our Managing Director is responsible for overseeing Asian Agri’s business, including providing oversight to the company’s sustainability commitments and NDPE policy implementation.

We conduct regular meetings to keep our Managing Director up to date on Asian Agri’s sustainability issues, such as the status of certifications, progress on projects and monitoring of performance.

2. Stakeholder Engagement

We believe in the importance of continuous, constructive and open dialogue with stakeholders to ensure that their expectations and interests are met. As such, we regularly engage our stakeholders through a variety of channels. This illustrates our approach to sustainability and how we report on our sustainability performance. For details on our list of stakeholders and how we engage them, please refer to page 83-84.

To stay up to date on the latest developments in sustainable palm oil and to share best practices with other companies, we have established a few key partnerships with national and international organisations. This is in line with our belief that collaboration with partners is key to improving our performance. In addition, we are assessed and included in various benchmark ratings. Since 2015, we have been assessed annually by the Sustainable Policy Transparency Toolkit (SPOTT). We have also been submitting our disclosure to the Carbon Disclosure Project (CDP) since 2018.

3. Certifications and Memberships

To operationalise AA 2030, we set up the AA 2030 Governance, led by the steering committee to provide strategic oversight of our AA 2030 strategy. Reporting directly to the steering committee are our AA 2030 champions that provide operational leadership and oversee the implementation of our strategy, with the help of AA2030’s Project Management Office and Implementation Department/Teams. Our AA 2030 working groups are tasked with implementing and communicating our strategy as well as reporting the progress.
We have been actively implementing ISPO, RSPO and ISCC standards in all our plantations and mills. Today, we are proud to share that we have achieved ISPO, RSPO and ISCC certification for most of the palm oil produced in our mills and KCP.

Apart from ISPO, RSPO and ISCC, we also participate in the following local and international certification schemes:

- Kosher: Since 2016, we have been Kosher certified for our mills and KCPs
- GMP+: Since 2015, we have been part of the Good Manufacturing Practices (GMP) certification scheme which provides independent verification and certification on food safety.
- ISO 9001: We have obtained this certification on quality management systems for our Asian Agri Learning Institute (AALI) and Topaz nursery (OPRS)
- ISO 14001: We have obtained this certification for environmental management systems for our plantations and factories in North Sumatra, Riau and Jambi since 2005.

For more information on our participation in these certifications, refer to our website.

Progress on Certifications
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- ISO 14001: We have obtained this certification for environmental management systems for our plantations and factories in North Sumatra, Riau and Jambi since 2005.

For more information on our participation in these certifications, refer to our website.

4. Research and Development (R&D)
R&D is a key tenet of our approach to sustainability as we continuously seek cutting-edge solutions to improve our agricultural practices, whether it is to improve productivity of the land, manage pests and diseases, improve yields, rate of fertilisers, conserve soils or reduce waste. Furthermore, as climate change may alter conditions for oil palm cultivation, research is important for us to better understand necessary adjustments in our practices.

The Asian Agri R&D Centre, located in Tebing Tinggi in North Sumatra, currently hires a total of 51 highly experienced and qualified research scientists. Our scientists focus their efforts on agronomy, soil, pests, diseases, breeding, tissue culture and biotechnology.

Our R&D Centre is equipped with the following capabilities:

<table>
<thead>
<tr>
<th>Location</th>
<th>R&amp;D Centre</th>
<th>Research Areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tebing Tinggi,</td>
<td>Analytical Laboratory</td>
<td>Analysis of leaf nutrients, fertilisers, compost, oil palm, wastewater and FFB</td>
</tr>
<tr>
<td>North Sumatra</td>
<td>Agronomy</td>
<td>Provision of advisory services to plantation operation and developing site specific fertilizer recommendations</td>
</tr>
<tr>
<td></td>
<td>Pest &amp; Disease Laboratory</td>
<td>Developing Integrated Pest and Disease Management (IPM) and provision of advisory services to plantation operation on controlling pests and diseases</td>
</tr>
<tr>
<td></td>
<td>Statistics and Data</td>
<td>Analyzing data generated from trials (Agronomy, P&amp;D and Breeding) and managing digital library</td>
</tr>
<tr>
<td>Pangkalan Kerinci</td>
<td>Soil &amp; Survey</td>
<td>Undertaking soil survey and mapping to get better understanding about soil condition (type, fertility, topography, and boundary)</td>
</tr>
<tr>
<td>Riau</td>
<td>Clonal Oil Palm Propagation Unit</td>
<td>Production of superior ramets through various tissue culture techniques</td>
</tr>
<tr>
<td></td>
<td>Molecular Biology Laboratory</td>
<td>Planting material improvement via development of Marker Assisted Selection and Genomic Selection approaches.</td>
</tr>
<tr>
<td>Topaz, Riau</td>
<td>Oil Palm Research Station</td>
<td>Management of breeding trials and production of superior oil palm seeds</td>
</tr>
<tr>
<td>Various locations</td>
<td>Test fields</td>
<td>Allows us to test fertilisers, pest and disease control bioagents, progeny trials, as well as collect genetic resources in different agroclimates</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Certification</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Own plantations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certified area RSPO</td>
<td>86%</td>
<td>86%</td>
<td>86%</td>
</tr>
<tr>
<td>Certified area ISCC</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Certified area ISPO</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Certified oil RSPO</td>
<td>91%</td>
<td>83%</td>
<td>83%</td>
</tr>
<tr>
<td>Certified oil ISCC</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Certified oil ISPO</td>
<td>100%</td>
<td>94%</td>
<td>91%</td>
</tr>
</tbody>
</table>

1. The main audit for several numbers of our units in Riau were completed in December 2021 and we are currently in the final stages of obtaining RSPO approval, followed by the issuance of new certificates.
2. This refers to the fact that all of our 12 companies are ISPO certified, rather than the total of area certified under ISPO.
Moving forward, we will continue research to improve efficiency in fertiliser application using technology-driven precision agricultural techniques. This is particularly important due to the rising costs of fertilisers. In the coming year, we will be conducting site-specific fertiliser trials. Furthermore, we will also continue to search for better techniques to control pests and diseases, such as using more aggressive strains of bioagents to control pests and diseases and optimising ecosystem services.

One of our greatest R&D achievements to date is the development of second generation Topaz DxP seeds, which are superior seeds with higher yields even in marginal soil and relatively low rain fall area. For more information on Topaz DxP seeds, refer to our website.

In 2021, our R&D team achieved key research results in the following areas:

- Improvement in pest control: Development of higher quality bioagents (fungi and virus) to control leaf-eating pests
- Improvement in fertilizer application techniques/guidelines.
- Improvement in pollination: Hatch and carry mobile techniques to aid pollinating insects (Elaeidobius kamerunicus)
- More resistant planting materials: Nursery screening to strengthen planting materials tolerant to basal stem rot disease caused by Ganoderma boninense

In 2021, we received a total of 6 grievances:

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Grievances Raised</th>
<th>Issues Raised</th>
<th>Organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>6</td>
<td>Hotspots, waste disposal into river</td>
<td>RSPO, Ministry of Environment and Forestry, local communities, Local Government</td>
</tr>
<tr>
<td>2020</td>
<td>4</td>
<td>Hotspots, waste disposal into river</td>
<td>RSPO, Greenpeace Southeast Asia, Ministry of Environment and Forestry</td>
</tr>
<tr>
<td>2019</td>
<td>5</td>
<td>Hotspots, fires on our concessions, unauthorised use of forest areas</td>
<td>RSPO, Greenpeace International, members of the media</td>
</tr>
</tbody>
</table>

All grievances – including details on the issues, date raised and how they were resolved – are made public on our website.
Engaging with smallholders to implement sustainable farming practices and improve their livelihoods.

Smallholder Partnership

Engaging with smallholders to implement sustainable farming practices and improve their livelihoods.

**2030 Targets**

<table>
<thead>
<tr>
<th>Performance 2021</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double smallholder income through replanting program: 1.68x (in KUD Bina Usaha Bana, Riau)</td>
</tr>
<tr>
<td>100% completion of smallholders’ replanting program: Up to 9% completed (Replanted more than 5,000ha of smallholder land since 2016, including 1,800ha replanted in 2021 alone)</td>
</tr>
<tr>
<td>100% ISPO certification for smallholders: 1,3% completed (5,000 independent smallholders to be RSPO certified)</td>
</tr>
<tr>
<td>Conducted polygon mapping, gap analysis, and preparation for certification</td>
</tr>
</tbody>
</table>

We engage intensively with our smallholders to upscale their livelihood.

**Sustainable Supply Chains**

Traceability is our first step towards building a fully sustainable supply chain. Our palm oil mills are supplied with fresh fruit bunches (FFB) from our own plantations, scheme smallholders, and independent smallholders. Palm kernel (PK) for our kernel crushing plant (KCP) is sourced from our own mills and third-party mills.

Our scheme and independent smallholders

We currently source from and support scheme smallholders located in Riau and Jambi:

**Riau**

- Regency: Pelalawan, Kuala, Penarikan
- District/Village: Ulu, Batang, Gunung Sahilan, Peranap

**Jambi**

- Regency: West Tanjung Jabung, Batanghari, Tebo
- District/Village: Tungkal Ulu, Muara Gunung, Bunga Tebo

<table>
<thead>
<tr>
<th>Number of scheme smallholders</th>
<th>Riau</th>
<th>Jambi</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of scheme smallholder groups</td>
<td>659</td>
<td>494</td>
<td>1,153</td>
</tr>
<tr>
<td>Number of scheme smallholder cooperatives (consisting of several smallholder groups)</td>
<td>38</td>
<td>34</td>
<td>72</td>
</tr>
<tr>
<td>Total planted area by scheme smallholders (Ha)</td>
<td>29,450</td>
<td>23,443</td>
<td>52,893</td>
</tr>
</tbody>
</table>
Number of KCP suppliers

<table>
<thead>
<tr>
<th>Region</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Sumatra</td>
<td>13</td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Riau</td>
<td>9</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Jambi</td>
<td>13</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td><strong>Number of suppliers</strong></td>
<td><strong>32</strong></td>
<td><strong>35</strong></td>
<td><strong>38</strong></td>
</tr>
</tbody>
</table>

Note: Some suppliers are supplying to more than one KCP, so the total might not be the sum of each region.

Commitment to 100% FFB Traceability
308-1, 414-1

We are investing efforts to ensure our FFB and products can be traced to their origins. To meet our goals for supply chain traceability, we have developed a systematic strategy based on supply identification and supplier engagement that will help us in identifying our FFB supply sources.

As a result, we successfully achieved and maintained 100% traceability to plantations since 2017.

Our Journey Towards Reaching 100% FFB Traceability to Plantations for Scheme and Independent Smallholders

1. Engagement on sourcing policy
First, we shared the understanding of our sustainability standards (embedded in our NDPE policy and sourcing policy) to the smallholders. We require them to submit baseline data and a compliance statement regarding issues such as legality of their land, protection of conservation areas, and other social issues. They are only allowed to supply to our mills once they have passed the screening and verification process by our traceability officers’ team.

For our commodities to be considered as fully traceable to plantations, suppliers are required to provide their data and information of their name (legal entity – personal or company), mill name and address (for PK), plantation name, address and area (for FFB), geographical coordinates, and also their estimated monthly production. These information are to be analysed by our team to ensure that we only source from legal area.

We also require their plantations to be surveyed to confirm that all criteria related to our policy commitments have been fulfilled. After the first stage of data reviewing has been cleared, they will submit documents as administrative requirements for example legal ownership, copy of ID card, signed commitment letter and copy of bank statement. We believe accurate data and information gathering is key to achieving full traceability:

<table>
<thead>
<tr>
<th>Data and Information Needed</th>
<th>Mill (for PK)</th>
<th>Scheme and Independent Smallholders (for FFB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name &amp; address of suppliers (for personal or legal entity)</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Plantation GPS coordinates</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Plantation area in Ha</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Estimated production</td>
<td>✔️</td>
<td>✔️</td>
</tr>
<tr>
<td>Legal documents</td>
<td>✔️</td>
<td>✔️</td>
</tr>
</tbody>
</table>

For more information on our suppliers, refer to our supply chain map.

We monitor the number of new suppliers for FFB and PK each year. See table below for the number of the last 3 years.

<table>
<thead>
<tr>
<th>Year</th>
<th>PK</th>
<th>FFB</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>7</td>
<td>27</td>
</tr>
<tr>
<td>2020</td>
<td>14</td>
<td>20</td>
</tr>
<tr>
<td>2019</td>
<td>8</td>
<td>34</td>
</tr>
</tbody>
</table>

Note: These figures include returning suppliers whom we procured from in the past.
Our next focus is to obtain FFB traceability data from all our suppliers. This is an area which we continue to improve our performance. Currently our FFB suppliers consist of two different categories:

Recognising the difficulties independent smallholders face in obtaining data, we started working with the following partners to help us collect data from them more efficiently and accurately:

Recognising that independent smallholders additional support to comply with our standards, we also invest efforts in empowering them through our smallholders program. Refer to pages 34-35 for more information.

Asian Agri has been forging close partnerships with smallholders for over 30 years, since pioneering our first scheme in Riau and Jambi in 1987. Partnering with smallholders has been a core strategic objective of our business since the very beginning, enabling us to establish a win-win relationships by securing a continuous and reliable supply of fresh fruit bunches (FFB) while providing better livelihoods for smallholders.

As of 2021, we work with more than 30,000 scheme smallholders and 8,000 independent smallholders who manage around 60,000 hectares and more than 35,000 hectares of land, respectively.

We also conduct random checks and surveys of their plantations to ensure that any breaches of social or environmental issues do not occur. If any major non-compliance or violations of our NDPE policy are found, we will verify them immediately, and if proven, they are subjected to immediate suspension. For smaller plantation and overlay this on the provincial spatial plan map to ensure the plantations are not located within illegal areas, such as national parks, wildlife reserves and conservation areas.

Program Traceability to Plantation

Our next focus is to obtain FFB traceability data from all our suppliers. This is an area which we continue to improve our performance. Currently our FFB suppliers consist of two different categories:

1. Outgrowers – company who owns plantation >25 ha
2. Smallholders – individual who owns plantation <25 ha.

These smallholders are supplying to our mills through different channels:

- Direct
- Group (e.g. cooperative (KUD) / Gapoktan (Gabungan Kelompok Tani)/ association)
- Agents

1. Monitoring our suppliers

Our teams then examine the condition of the plantation and take GPS coordinates at the centre of the plantations. For plantations located near high-risk areas, coordinates are taken from the edge of the plantations (polygon shape) to make sure that there are no oil palms in no-go areas. We use this data to map out the location of their plantation and overlay this on the provincial spatial plan map to ensure the plantations are not located within illegal areas, such as national parks, wildlife reserves and conservation areas.

2. Monitoring our suppliers

We also conduct random checks and surveys of their plantations to ensure that any breaches of social or environmental issues do not occur. If any major non-compliance or violations of our NDPE policy are found, we will verify them immediately, and if proven, they are subjected to immediate suspension. For smaller plantation and overlay this on the provincial spatial plan map to ensure the plantations are not located within illegal areas, such as national parks, wildlife reserves and conservation areas.

Recognising the difficulties independent smallholders face in obtaining data, we started working with the following partners to help us collect data from them more efficiently and accurately:

- Jambi: Conducted data collection in 2016 in collaboration with Yayasan Setara Jambi and The Sustainable Trade Initiative (IDH).
- North Sumatra & Riau: Engaged with Meo Carbon Solutions and SNV in 2018 through a six-month program to verify our traceability system for these areas. They analysed samples of the upstream supply chain within North Sumatra and Riau Provinces, covering about 20,000 smallholders. The analysis focused specifically on the reduction of manual efforts, efficiency increase and robustness of systems and processes, as well as the use of latest technology, remote sensing and online monitoring tools. These measures would also enable better monitoring, plantation management and enable access to finance. We are currently planning on the final phase of this project, which was delayed due to the COVID-19 pandemic.

Recognising that independent smallholders additional support to comply with our standards, we also invest efforts in empowering them through our smallholders program. Refer to pages 34-35 for more information.

Smallholder Empowerment

A Pioneer in Smallholder Partnerships

Asian Agri has been forging close partnerships with smallholders for over 30 years, since pioneering our first scheme in Riau and Jambi in 1987. Partnering with smallholders has been a core strategic objective of our business since the very beginning, enabling us to establish a win-win relationships by securing a continuous and reliable supply of fresh fruit bunches (FFB) while providing better livelihoods for smallholders.

As of 2021, we work with more than 30,000 scheme smallholders and 8,000 independent smallholders who manage around 60,000 hectares and more than 35,000 hectares of land, respectively.
Supporting Our Scheme Smallholders

In 1987, Asian Agri was one of the first companies to participate in the Plasma Transmigration Program (Perkebunan Inti Rakyat), set up by the Indonesian government. Our continuous dedication to our smallholder partnerships is reinforced by our one-to-one commitment, where we aim to match every hectare of our own land with one hectare of land owned by smallholders. Today, scheme smallholders manage 52,893 ha of land supplying 13% of our total FFB demand.

To ensure we provide the best support for our scheme smallholders, we have set up a dedicated Plasma Management Team, which oversees all aspects of smallholder program. The strong partnership between our Plasma management team and our smallholders, which is built on a high level of trust and transparency, is key to our success.

Asian Agri’s Plasma Management Team liaises with smallholder cooperatives to manage their smallholders. The cooperative has a role in organising and coordinating farmer groups, including managing FFB sales and monitoring the implementation of the guidelines consistently.

Smallholders receive support from the Plasma Manager, assistants and foremen, who conduct regular meetings with cooperatives and farmer groups’ representatives. These meetings also provide an opportunity for smallholders to raise any technical issues they face or grievances towards the company.

Ambition to Double Smallholder Income

Our bold ambition is to double smallholder income by helping them to improve yields, in particular through our replanting program.

In 2021, our smallholders earned an average of IDR6,650,000 per month – more than double of the provincial minimum wage stipulated by local governments. This figure is also almost double of what they earned in 2020. The increment was due to better production and a much higher price of. At IDR3,500/kg, this was the highest average FFB price ever recorded nationwide. These prices are determined by provincial government regulations and communicated to smallholders through weekly meetings.

As FFB prices are volatile, our goal is to help them maintain high production through the support they receive in our smallholder programs.

Programs to Support Scheme Smallholders

We also provide further support for scheme smallholders through the following programs

1. **Replanting**
2. **Obtaining sustainability certifications**
3. **Fire awareness and prevention**
4. **Knowledge sharing on best practices in palm oil management**

Replanting

Oil palms are at their prime from 8 to 18 years of age. After 25 years, their production usually starts to decline, furthermore they are usually too difficult to harvest as they become too tall. Thus, we normally suggest smallholders to replant their oil palms after 25 years. Replanted new oil palms usually take between three to four years to become productive, during which farmers are unable to sell their FFB. Faced with this challenge, smallholders may choose to delay replanting instead, resulting in declining yields and lower income from the ageing trees.

As part of our commitment to support smallholders, we share part of the profits earned from sustainable palm oil by investing the amount in smallholder programs. In 2021, we contributed a total of IDR 2.63 billion to fund programs supporting our scheme smallholders. The amount was used to improve agronomic skills and knowledge, renovate or build new village/plantation infrastructure, livestock cultivation and other activities.
a. Financial assistance for quality inputs: To help smallholders purchase the seeds and other resources required for replanting, we help them gain access through banks, financial institutions and/or the Indonesian Palm Oil Plantation Fund Management Agency (Badan Pengelola Dana Perkebunan Kelapa Sawit - BPDPKS). Asian Agri acts as a guarantor for the bank and commits to continuing our support for the smallholders until they can fully repay their loans. Most importantly, access to finance allows smallholders to purchase quality seeds, enabling them to have bigger harvests without increasing their land area. The return on investment of high-quality seeds is especially significant as oil palms typically have a productive life of about 25 years.

b. Land preparation: We help smallholders to prepare their land for replanting, starting by felling old trees, chipping, tilling the soil, fertilising, setting up planting points, and finally holing the soil. The process from felling to holing the soil takes six months to complete.

c. Alternative sources of livelihood: As smallholders wait for their new oil palms to bear fruit, we help them to gain access to alternative sources of livelihood to help them through the waiting period. We provide cattle, day-old chickens, fish, goats, cows and stingless honeybees (known as ‘kelulut’), as well as other vegetable seeds. Apart from a source of livelihood, some produce can also have other uses. For example, cattle manure can be used as fertiliser, to produce biogas and for cooking. We also support farmers that want to expand into making handicrafts or other non-agricultural forms of business.

Over the years, we have made significant progress in helping our scheme smallholders. Today, 100% of the palm oil produced by our scheme smallholders are RSPO and ISCC certified. We aim for all our scheme smallholders to be ISPO certified by 2030.

Our targets for certifications

<table>
<thead>
<tr>
<th>Year</th>
<th>Certification</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>✔ 100% ISCC certification</td>
</tr>
<tr>
<td>2017</td>
<td>✔ 100% RSPO certification</td>
</tr>
<tr>
<td>2024</td>
<td>✔ Begin ISPO certification as mandated by Government</td>
</tr>
<tr>
<td>2030</td>
<td>✔ 100% ISPO certification for smallholders</td>
</tr>
<tr>
<td></td>
<td>✔ 5,000 independent smallholders to be RSPO certified</td>
</tr>
</tbody>
</table>

Our progress on certifications

<table>
<thead>
<tr>
<th>Certification</th>
<th>Our Journey</th>
<th>Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSPO</td>
<td>In 2011, the Indonesian government established the ISPO certification as a mandatory requirement for all oil palm growers and millers in the country. It sets standards regarding the environment, workers and respect for indigenous communities. In 2015, we started preparing our scheme and independent smallholders for RSPO certification.</td>
<td>Certified 100% of our own plantations and mills</td>
</tr>
<tr>
<td>ISCC</td>
<td>Since 2006, we have been a member of RSPO, a global multi-stakeholder initiative that produces an international standard for the management of sustainable palm oil. We received our first RSPO certification for our plantation in 2010, and for our smallholder scheme in 2012.</td>
<td>Certified more than 86% of our own plantations and mills in North Sumatra, Riau &amp; Jambi</td>
</tr>
<tr>
<td></td>
<td>ISCC is an international certification system established based on an EU Directive on renewable raw products for producing biofuel, food, feed and chemicals. ISCC includes commitments on issues such as avoiding planting on no-go areas, GHG emissions reduction and social sustainability. In 2012, we achieved our first certification for our own mills and plantations. In 2013, we achieved the same for our first scheme smallholder. Since then, we have certified all our mills and plantations. To reduce our GHG emissions for ISCC certified products, we installed methane capture facilities in our mills and built biogas plants.</td>
<td>Certified 100% of our own plantations and mills, including by our scheme smallholders 100% of our mills have obtained waste and residue certification, up from 50% in 2020</td>
</tr>
</tbody>
</table>
Replanting program for KUD Makmur Rezeki using high-yield Topaz seeds

The Regent of Batanghari was also invited to officiate the replanting program, and other oil palm farmers were also invited to better understand and learn from Asian Agri’s training to clear land without resorting to slash-and-burn techniques.

For more information on how we work with communities to prevent fires, please see pages 53-56.

Knowledge Sharing on Best Practices in Palm Oil Management

We provide smallholders with agricultural knowledge and technical skills in oil palm management. We have a team of dedicated staff providing training on fertiliser and chemical application (for example dosage, type, application method, etc.), caring for oil palms, harvest techniques, fruit quality, use of equipment and more.

Supporting Independent Smallholders

In 2021, independent smallholders that supply directly to our mills supply about 46% of the total FFB demands of Asian Agri. Among this group, those under the Corporate Shared Value (CSV) program supply about 10% of the total FFB we receive.

In Indonesia, independent smallholders tend to struggle with agronomic practices which are less productive and sustainable, even though they manage more than 70% of smallholders’ plantations nationwide⁷. While the palm oil industry has moved forward with sustainability certification, such as ISPO and RSPO, certification for independent smallholders is still in its early stages.

As such, we began supporting independent smallholders in 2012, building on our years of experience working with scheme smallholders.

Corporate Shared Value (CSV) program

Through our Corporate Shared Value (CSV) program, we currently support around 8,000 independent smallholders in North Sumatra, Riau and Jambi, managing a total of more than 35,000 hectares of land. Building on the successes of and lessons learnt from our scheme smallholder partnership program, we provide a similar range of support for independent smallholders, including helping them to form cooperatives, providing training on best practices, providing them with replanting support through quality seeds, financial assistance, and helping them to obtain sustainability certifications.

To ensure our approach to traceability and smallholder partnerships is robust and relevant, we rely on regular feedback received through smallholder engagements, expert insights from external consultants or NGOs, feedback from certification bodies such as RSPO, as well as any grievances raised. We seek to continually improve on our initiatives, which is critical to help us meet our ambitious goals set out in AA2030.

SMILE Program makes headway in its first year

In 2021, we continue to make progress with an initiative launched last year to help independent smallholders improve their yield, acquire sustainability certification, and eventually secure sales premiums from selling certified palm oil.

SMILE Program makes headway in its first year

2021 SMILE Program makes headway in its first year

Independent smallholders receiving training on agronomic practices as part of the SMILE program

In 2021, we carried out a replanting program in Batanghari Regency, Jambi Province, conducted by one of our cooperatives (KUD Makmur Rezeki in Bulian Jaya village). We supplied the cooperative with Topaz seeds which have been tested to deliver high productivity, replacing the palm seeds chosen by the farmers which have been producing low yield. Our hope is that this will generate higher income for the farmers, up to even double their current income. The program was financed by an IDR30 million loan with Asian Agri as a guarantor.

Fire Awareness and Prevention

To prevent fires occurring on their lands – in line with our zero-burning policy – we work closely with our smallholders to help them opt for alternative methods to clear land. This includes providing them with heavy equipment and training to clear land without resorting to slash-and-burn techniques.

In 2021, we continued this work by partnering with our smallholders to build safety awareness and capacity to implement robust safety measures. We provided them with safety kits, including safety helmets, gloves, fire extinguishers and safety training.

In 2022, we aim to have further independent smallholders benefit from the SMILE program.
Our employees are integral to the success of our business. We are committed to strengthening the productivity of our workforce, improving worker benefits and welfare, and providing rewarding career and growth opportunities.

**Employee Attraction, Management and Retention**

As of December 2021, we employ a total of 21,304 employees and workers across our operations, most of whom are located on-site in mills and estates. Among this group, 1,012 are employees and 20,292 are workers, of which 8,628 are permanent and 11,664 are contract workers.

Our employees perform roles such as back-office functions in regional offices or supervision of daily workers in mills and plantations, while we hire workers to operate machinery, provide security on-site, and perform other duties.

During the peak crop season, additional labour is often required for harvesting or transportation of fresh fruit bunches (FFB), or on occasions when there is a major outbreak of pests or disease requiring immediate action. During these certain periods in the planting cycle, we also source temporary seasonal contract workers. During low crop season, these temporary workers may be allocated to work in areas such as fertilising, manuring, and weeding.

**Our Employee Profile**

As of December 2021, we employ a total of 21,304 employees and workers across our operations, most of whom are located on-site in mills and estates. Among this group, 1,012 are employees and 20,292 are workers, of which 8,628 are permanent and 11,664 are contract workers.

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**A Diverse Workforce**

**percentage of workforce by ethnicity**

<table>
<thead>
<tr>
<th>Year</th>
<th>Malay</th>
<th>Chinese</th>
<th>Javanese</th>
<th>Minang/Other</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>42.9%</td>
<td>29.3%</td>
<td>10.2%</td>
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<td>28.5%</td>
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</tbody>
</table>
To attract and retain our talent pool, we provide competitive benefits and remunerate employees based on their performance.

**Decent Living Wage (DLW)**

This year, we conducted a Decent Living Wage (DLW) analysis to ensure that all employees are receiving fair wages and benefits. The analysis was done in accordance with RSPO requirements and has also been verified annually by the auditor. The results found that all our employees were receiving wages and benefits according to DLW calculation.

**Employee Benefits**

Our employees receive healthcare, insurance, performance bonuses, incentives and special awards (for e.g., for length of service), allowances (for e.g., house, car), and scholarships for their children.

We provide a range of support to employees/workers and their families located on-site in mills and estates, in order to ensure that they have access to a range of facilities:

- **Housing:** Housing estates are equipped with facilities such as standard furniture, water supplied from mill or estate, electricity and also including building maintenance.
- **Education:** Childcare and school facilities enable parents with younger children to remain close to their parents
- **Transport:** Transport is provided to facilitate convenient travel across and within our estates for workers and for other uses such as school bus and ambulance.
- **Sporting facilities:** We build soccer fields, tennis courts, badminton courts and other sporting facilities for recreation.
- **Places of worship:** We build or upgrade churches and mosques to meet the spiritual needs of our employees/workers
- **Community building activities:** We organise cultural and religious events to promote stronger community bonds among our employees/workers and their families.

*Fair Wages and Employee Benefits*

*To attract and retain our talent pool, we provide competitive benefits and remunerate employees based on their performance.*

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*Since the start of the pandemic, some training programs such as on health and safety, have been conducted virtually. For other topics like agronomy and basic fire training, we have also conducted on-field and in-classroom training, adhering to strict health protocols.*

**Training and Development**

We also invest in upskilling our workers to ensure they are equipped with the right skills to meet the high expectations set by our stakeholders. This enables us to meet our goals of providing quality jobs and socio-economic development for rural communities, where our plantations and operations are located.

**Asian Agri Learning Institute (AALI)**

Our training programs are implemented through the Asian Agri Learning Institute (AALI), which was established in 2002 and is based in Pangkalpinang, Riau.

Some of these training programmes run by AALI include:

- **Refresher training on technical and soft skills:** For employees to upgrade and/or maintain their technical skills.
- **Young assistant development training:** Specific training for employees under two years of service.
- **New product introduction training:** Conducted in collaboration with vendors.

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**Number of training sessions held**

**Number of employees who attended training sessions**

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**Asian Agri | Sustainability Report**

38 Business Excellence for a Sustainable Future | Asian Agri

39
Every year, we train high potential individuals through our Plantation Center of Excellence Graduate Trainee program. We invite fresh graduates from Universities and our own employees who excel in their jobs to apply for the program which equips them with skills such as horticulture, mill processing, management, leadership and certification. Through the program, our goal is to train future generations of skilled planters and managers in sustainable palm oil production. While most of the graduates embark on careers with Asian Agri in areas such as mill and estate operations, others also move on to work with smallholders.

In 2021, we trained 228 individuals through this program. Out of this number, 194 are currently employed by Asian Agri and the remainder is still undergoing on-the-job training.

Following a competitive selection process, these trainees undergo training while being assessed for their suitability for employment. This includes:

- **Classroom sessions**: 3 months of classroom sessions taught by industry experts and experienced Asian Agri employees on the science of sustainable palm oil production. Through these sessions, trainees also learn about Asian Agri’s sustainability policy and the company’s commitment to zero deforestation, peatland protection and programs to support rural communities.

- **On-the-job training**: 3 months of practical on-the-job training where trainees are sent to Asian Agri’s various mills, estates or plasma smallholder partners. During this period, trainees are expected to identify and resolve on-the-ground issues that smallholders and estate managers face on a regular basis.

- **Evaluation**: After 6 months, trainees are evaluated based on their competence and character on their suitability to be employed by Asian Agri.

We recognise that labour issues remain significant and complex to address within the palm oil industry. As such, we do all we can to protect the labour rights of the workers in our operations.

As outlined in our Human Rights Policy, we respect and support the Universal Declaration of Human Rights (UDHR), as well as the International Labour Organization’s (ILO) Declaration on Fundamental Principles and Rights at work. We have pledged to achieve the promotion of universal respect for, and observe, human rights and fundamental freedoms. This is based on the United Nations’ (UN) Guiding Principles on Business and Human Rights framework.

Our Human Rights Policy outlines our commitments towards:

- **Zero tolerance towards forced labour and child labour**
- **Gender equality and protection of women workers**
- **Ensuring our workers have freedom of association and the right to collective bargaining**
- **Equal opportunities, non-discrimination and no harassment at the workplace**

These strict policies also extend to our temporary workers and other stakeholders such as suppliers and partners.
Forced Labour and Child Labour
408-1, 409-1

Forced labour is a significant issue that can occur in Indonesia’s palm oil industry, due to the nature of the work in plantations which exposes workers to the risk of seasonal work, low wages, long hours and poor health and safety conditions. Similarly, child labour can also occur due to the poor quality and availability of schools in rural areas, or simply as a result of children loafing or playing in plantations. As such, we enforce a strict policy against forced labour and child labour in all our operations, as verified by our auditors in our certification process. We provide childcare and educational facilities to our workers to ensure that children do not accompany them to the plantations. This policy also applies to all workers who are hired by subcontractors to work in our concession areas. Our employees conduct daily checks on subcontracted workers in our concessions. If any breaches are found, it could lead to contract termination.

Every supplier we engage with is required to sign a letter committing to zero tolerance towards forced labour. Similarly, to prevent children from entering the plantations, we liaise with our smallholders regularly and remind them not to bring their children to the plantations while they are working. In 2021, as with previous years, none of our operations or suppliers had any cases of forced labour or young workers exposed to hazardous work. It is our firm commitment to ensure that none of these incidents occur in our operations.

Gender Equality and Equal Opportunities

We have non-discrimination policies in place and have formed a Gender Equality Committee to examine how we can improve our commitment. The committee holds meetings at least twice a year on any issues related to discrimination, harassment, equal opportunities and other related issues.

For more information on the benefits provided to our employees, refer to page 38.

Freedom of Association and Collective Bargaining

We support the freedom of all our employees to collective bargaining through labour unions. Participation in labour unions allows our employees to better communicate their expectations and aspirations. Our collective labour agreement, through the Indonesian Worker Union (PP SPSI Sumatra), was created and approved by all 160 companies who are members of Agency for Corporation of Sumatra Plantation (Badan Kerja Sama Perusahaan Perkebunan Sumatera - BKSPPS). The agreement covers issues such as working time, number of working days, days off, wages, over time rate, bonus, social security and assistance, health and safety and termination. When disputes occur between workers and the company, PP SPSI Sumatra will act as a mediator between them. If required, they will also assist the worker to file their case to the governmental labour service agency or to the courts.

Some of our workers are also members of the Indonesian Trade Union Confederation (Konfederasi Serikat Buruh Seluruh Indonesia - KSBSI), which provides similar benefits as PP SPSI Sumatra.

Grievance on Labour Rights

In May 2021, a labour strike occurred in Jambi and the demands from our workers were for an increase in wages and the appointment of permanent workers. Both parties went through mediation and negotiation the following week, before agreeing to both points as follows:

• Wage increase as demanded (starting from the beginning of the year and for the payment to be combined with the next salary payment)
• Appointment of permanent employees to be carried out in a proportional, selective and gradual manner

Moving Forward

As the palm oil industry and profile of the workforce continues to evolve, we also need to continue monitoring changes with regards to labour rights risks in our operations. To do that, we rely on a variety of channels such as results from audits in our certification process, daily checks on subcontractors conducted by our employees, and the voices of our worker committees and trade unions. We will continue to improve on our policies, procedures and processes to ensure that our workforce – and that of our subcontractors – continue to enjoy the economic benefits of working in the palm oil industry while having their welfare protected.

Occupational Health and Safety

Ensuring Safety is Everyone’s Responsibility

Safety is a top priority at Asian Agri and we strive to maintain a workplace culture where safety is everyone’s responsibility. We believe that it is only in this way that we are able to eliminate risks of accidents and illnesses among our workers and employees. This also helps us to ensure that operations are not disrupted and our employees and workers can perform their duties comfortably. We also apply the same high safety standards for our contracted third-party workers. All these efforts are overseen and managed by our Health, Safety and Environment (HSE) Department.

We continuously strive towards having zero fatalities and disabilities in all our operations.
Protecting Our Workers from Hazards

403-1, 403-2, 403-3, 403-4, 403-5, 403-7

Occupational Health and Safety (OHS) Management Systems

We implement an OHS management system in line with Government Regulation no.50, 2012, on the implementation of OHS Management System (SMK3) - a mandatory regulation by the Indonesian government. Our OHS management system covers all employees, sub-contractors and suppliers working under the supervision of Asian Agri, as well as all work activities and environments involving labour, including our plantations, KCPs, mills, biogas plants and other areas.

OHS Committees

Each of our estates and mills have an OHS Committee to enforce Asian Agri’s safety protocols and standards. They are responsible for identifying potential hazards and ensuring that our safety equipment is available and in good working condition. To carry out their responsibilities, they meet quarterly to discuss safety issues and concerns.

Health and Safety Awareness and Training

In addition, our OHS Committees also conduct regular training and safety drills for our employees as part of their day-to-day responsibilities. Our training, provided free of charge and mandatory for all workers, includes topics such as basic safety training, first aid, recognising danger and risks at the workplace, safe handling of hazardous waste, OHS regulations and permits, emergency response procedures and firefighting drills. Most of these workshops are conducted once a year. To ensure that our training remains relevant and engaging, we seek feedback from workers after every session through feedback forms, update our training content whenever new OHS regulations arise, and provide opportunities for our trainers to deepen their knowledge and skills.

To constantly remind our workers about the importance of safety, we distribute weekly safety bulletins and place safety notices on warning boards at all areas of medium to high risk and portals/gates.

We also conduct health workshops on issues on topics, such as drug and substance abuse, fight against stunting and malnutrition for mothers and children, and raise awareness on protection against COVID-19.

Provision of Personal Protective Equipment (PPE)

In the plantations, our workers are exposed to risks such as insect bites, cuts, bruises, fractures, sprains as well as health effects from chemical substances. In the mills, our workers are exposed to the risk of burns, falls and accidents involving machines or heavy equipment.

To minimise any incidents from occurring, we provide our workers with PPE including gloves, helmets, boots, goggles, masks, earmuffs and safety clothing. We ensure that the type of PPE is adequate for the nature of their work. For example, workers in the steam turbine section are provided with earmuffs, while workers handling chemicals are provided with masks. If workers are not fully equipped with PPE, they are not allowed to begin work.

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Starting from 2022, OHS officers must report any incidents resulting in major injuries - such as hospitalisation or permanent disability - to our OHS team in the Head Office within 48 hours. The OHS team at Head Office will then conduct an on-site investigation of the incident, log the incident report and provide recommendations to prevent recurrence. In the past, only incidents resulting in fatality will have to undergo this process.

In addition, our OHS experts conduct risk assessments, used for reporting to government agencies twice a year and for the audit process for sustainability certifications.

Information gathered through these channels help us to identify and update the hazards and risks faced by our workers. We are then able to improve our OHS management system accordingly.

Safeguarding Worker Health

403-6

To safeguard the health of our workers, we built clinics and provide first aid kits in strategic locations across our plantations and mills, ensuring that workers have easy access to medical facilities when the need arises. There is a clinic in every estate or group of estates.

In the event of an emergency, we implement a standard protocol where the foreman (or closest co-workers) will apply first-aid using the first-aid kit provided to each foreman. For more serious cases, the patient will be transported to the clinics available in the estates or sent by ambulance to the nearest hospital. All our employees are covered by health insurance.

We also provide regular health check-ups for workers. For those operating in environments with higher risk of health issues, such as workers regularly exposed to herbicides and pesticides, check-ups are scheduled twice a year. Other workers who do not handle chemicals are provided with annual check-ups. These tests are conducted in our clinics by third party lab personnel. In 2021, we were able to resume these annual medical check-ups for our employees, while still adhering to strict health protocols. This was also clearly explained to the workers who understood the limitations.

In 2021, we had zero fatalities and zero injuries resulting in permanent disability, as a testament of our commitment to worker safety. However, despite our best efforts, accidents do continue to occur and in these unfortunate cases, we do our best to provide support for victims and their families.

To prevent incidents from occurring, we ensure that a Job Safety Analysis (JSA) is conducted before any work begins, especially for high-risk activities. This involves a step-by-step procedure to assess the work required and identifying any risks that could occur. We continue to strive towards our vision for a zero-fatality and zero-accident workplace.

Our Performance

403-9, 402-48

In 2021, we had zero fatalities and zero injuries resulting in permanent disability, as a testament of our commitment to worker safety. However, despite our best efforts, accidents do continue to occur and in these unfortunate cases, we do our best to provide support for victims and their families.

To prevent incidents from occurring, we ensure that a Job Safety Analysis (JSA) is conducted before any work begins, especially for high-risk activities. This involves a step-by-step procedure to assess the work required and identifying any risks that could occur. We continue to strive towards our vision for a zero-fatality and zero-accident workplace.

To meet our goal of eliminating fatalities and reducing the rate of injuries and illnesses, we believe it is important to maintain records of incidents. By evaluating each incident after they occur, we are able to identify areas for improvement and prevent similar incidents from occurring in the future.
Number of fatalities \times 200,000/man-hours; Man-hours: Number of workers \times scheduled working days \times 7 hours per day.

We have restated the figures for 2019 and 2020, due to miscalculations in figures for our last sustainability report (2019-2020).

First Aid refers to any incident that can be addressed by applying first aid and workers can continue working after a short rest. This includes small cuts and scrapped skin.

Medical Aid refers to any incident that requires special care or medication and the workers need day off(s) to recuperate.

Lost days are calculated after 2 scheduled work days.

Injury Rate, Lost Day Rate and Absentee Rate by Region

We believe in the importance of adopting responsible and sustainable practices in palm oil production, in order to protect Indonesia’s forests and prevent deforestation, loss of diversity and forest fires.

There have been no work-related accidents resulting in permanent disability in the past three years (2019-2021).

There have been no work-related fatalities in the past three years (2019-2021).

We adhere strictly to our Sustainability Policy which sets out our commitments to biodiversity and conservation. This includes our NDPE-commitments towards:

- **No Deforestation:** Protecting areas of high conservation value (HCV) and high carbon stock (HCS), including the setting up of riparian zones.
- **No Peat:** Protecting peatland regardless of depth.

Moving Forward

Given the nature of our work, OHS is a key priority for us and it is only through continual vigilance and improvements that we can strive towards a zero-fatality and zero-accident workplace. We have in place different levels of governance to ensure that our approach to OHS remains robust, from our HSE Department at head office, OHS Committees in each of our estates and mills, as well as OHS officers and teams in charge of investigations and risk assessments.

Biodiversity and Conservation

We believe in the importance of adopting responsible and sustainable practices in palm oil production, in order to protect Indonesia’s forests and prevent deforestation, loss of diversity and forest fires.

One to One restoration area

Starting the process of obtaining legal permits for the areas that we plan to develop as restoration ecosystem.

No new land use change for plantations

Continue to adhere to our commitment of no new land use change for plantation since 2003.

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- **No Peat:** Protecting peatland regardless of depth.

These standards also apply to our smallholders, and we are committed to investing in robust smallholder programs to help them comply with the required standards for regulations and certifications, including compliance with our NDPE-commitments.
Our Focus on Replanting

Since 2003, we have in place a moratorium on any forest clearance and new peatland development. Instead, we focus on replanting and increasing yield in our existing estates. We do this for our own estates and work together with our smallholders to do the same.

Our current estates, including those owned by our plasma smallholders, were developed in the 1990s on degraded forests with low biodiversity value. Generally after 25 years, we replant new trees when our existing oil palms have reached maturity and are no longer considered productive in terms of yield and quality of fresh fruit bunches (FFB). In line with our ‘zero burning’ policy, the existing trees are cut down, and leaves and fronds are allowed to decompose to form fertiliser for new plants. This replanting process to prepare the land takes about six months. Currently, we have replanted more than half of our own estates, and have replanted more than 5,000 ha of smallholder land since 2016, including 1,800 ha replanted in 2021 alone. Our goal as part of AA2030 is to help 100% of our smallholders complete our replanting program.

We use high quality Topaz seeds developed in-house for replanting, and support our plasma and independent smallholders in this process. For further information on our quality Topaz seeds, please go to our website.

Protecting Conservation Areas and Biodiversity

Identification and Assessment

In line with our Sustainability Policy, prior to any replanting, we conduct relevant assessments including HCV assessments, peatland mapping and Social and Environmental Impact Assessments. We also develop and implement conservation and management plans.

All our existing estates are subject to HCV assessments conducted by third-party RSPO-approved assessors and peer-reviewed by independent assessors, in line with sustainability certifications. These assessments include issues such as habitat quality, soil conditions, peat presence and river quality.

Through these assessments, we identified HCV areas which have been set aside as conservation areas. We also identified and continue to monitor flora and fauna species within our concessions listed as Critically Endangered and Endangered in the IUCN Red List, including the Northern River Terrapin, Scaly Anteater, Dark-handed Gibbon, and Sumatran Elephant. A full list of endangered species found in our concessions can be found on our website.

In addition, we establish riparian zones and areas that are of high cultural value to local communities.

Management

To ensure the long-term protection of these conservation areas, aligned with our sustainability commitment, we have conducted required assessments such as HCV/HCS integrated assessment, Social and Environmental Impact Assessments (SEIAs) or AMDAL and peatland assessments within our operations. Although Asian Agri don’t have new planting over 2015, we adhere to HCS policy and assessment as part of our sustainability commitment.

To ensure that these management plans are implemented, we have established a dedicated team to oversee the process:

- **Head of Environment and Sustainability**
  - Formulation and implementation of strategic plan
  - Regular reporting on performance to management (twice a year)

- **Conservation Coordinator (North Sumatra, Riau & Jambi)**
  - Ensures all strategic plans related to management of conservation areas are well executed
  - Coordinate with assistants in own region

- **Coordinator’s Assistant**
  - Execute strategic plans to protect HCV areas in their region

- **Estate Foreman**
  - Supports assistants in field work — e.g., patrolling, wildlife monitoring

We maintain a strict policy against trapping, hunting, fishing of endangered species. We inform the local community about this policy by putting up signs prohibiting trapping, hunting, fishing and trespassing in these areas. We have also assigned field staff to monitor and record details of relevant species daily. We have a team on the ground patrolling our concession areas, and if a breach in our policy is found, individuals will be given a warning or prosecuted by law for major violations.

Commitment to One-to-One Restoration Area

By 2030, we aim to restore and conserve 100,000 hectares of degraded land for every 100,000 hectares of planted land. This is part of our AA2030 ambitions. To meet this target, we will draw from our past experience working on our one-to-one commitment for smallholders where we matched each hectare of our own plantations with one owned by the smallholders.

We have identified several locations in Indonesia that we consider suitable as ecosystem restoration areas. Currently, we are at the stage of obtaining an ecosystem restoration permit, which is expected to be obtained in the coming years.
To preserve peatlands, we implement the following measures in line with the RSPO Best Management Practices on Peatland:

- **Measuring drainage levels:** We conduct drainability assessments five years prior to replanting in peatland areas to determine the suitability of the land. This helps us to determine the best water management approach for the peatland, for example using bunds, water gates and weirs to prevent inflow of water during the monsoon period which can damage peatlands. Our procedure requires that water levels should be maintained throughout the year at between 50-70cm from ground level. To do this, we create water barriers or gates on each drainage channel.

- **Measure subsidence levels:** We preserve peatland by installing subsidence poles at strategic locations to monitor the level of peat subsidence monthly.

### Environmental Grievances

In 2021, despite our best efforts, we had one grievance regarding non-compliance with environmental laws and regulations.

In February, heavy rainfall caused one of the embankments of our POME pond to break and waste water flowed into the nearest river. The local community and government environmental agency filed a complaint about this matter. To address this, our mill manager from the public relations team – along with a local government official – conducted a spot-check of several locations along the river to determine the cause and effects of the incident to the ecosystem. They also developed an action plan to address the situation. Since then, we have repaired and strengthened the embankment to prevent future incidents from occurring. We also completed all administrative sanctions in accordance with local regulations, and are awaiting finalisation of case closure from the relevant agencies. In addition, we also offered compensation to the local communities affected by the incident.

All of our environmental-related grievances can be found in the Grievance Update section of our website.

### Peat Management

307-1

We are committed to no new development on peat, defined as organic soils with 65% or more organic matter, regardless of the depth of peat. Prior to any new planting, peat experts from our R&D department conduct peatland mapping and assessments, where they produce a peatland map showing areas that should be protected from any new development.

For peat areas assessed to be unsuitable for replanting, we collaborate with expert stakeholders and communities to explore options for long-term restoration or alternative uses.

Some of our plantations in North Sumatra and Riau are in peatland areas. We are currently managing seven peatland estates, representing around 26% of the total area under our management.

### Peatland Area (Ha)

- North Sumatra: 23,055 Ha
- Riau: 4,354 Ha
- Total: 27,409 Ha

Note: We do not operate on any peatland areas in Jambi.

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### Moving Forward

103-3

Replanting remains our key priority to allow us to continue growing our business in a sustainable manner. As such, we continue to invest significantly in our replanting efforts, working closely with our smallholders. Learnings gathered through engagements with smallholders are critical to help us improve our approach. To meet our conservation targets, we rely on results of our HCV/ HCS integrated assessment, peatland mapping and SEIAs. Our grievance procedure is also key to help us flag recurring issues that we need to address. In our next phase of work towards our one-to-one restoration target, we will be obtaining legal permits for identified locations in Indonesia suitable as ecosystem restoration areas.

### Fire Prevention and Management

**Preventing Forest Fires in Indonesia**

Forest fires and transboundary haze are long-standing problems in Indonesia, particularly during the dry months of July–October. The causes remain complex, including factors such as the use of traditional slash-and-burn methods to clear land and the conversion of highly flammable peatland for agriculture. The effects then create significant damage to the environment, as well as to the health and livelihoods of people in Indonesia.

We recognise the important role played by palm oil companies to prevent these problems from occurring.

At Asian Agri, our two-pronged strategy for fire prevention and management includes:

- **‘Zero Burning’ and ‘No Peat’ policy**
  - Ensuring that our own operations, smallholders and surrounding communities adhere strictly to our No Deforestation, No Peat, No Exploitation (NDPE) principles

- **Fire-Free Village Programme (FFVP)**
  - Working with local communities to adopt alternatives to slash-and-burn techniques to clear land

IDR 2.35 billion billion in “no burn incentives” distributed through programs and equipment to villages since 2017
Hotspots and fire incidents in our own estates, smallholders and surrounding communities

We recognise that fire prevention and management continues to remain a challenge for our industry.

Fires do continue to occur but not in our concession areas. Activities by the local community such as discarding burning cigarette buds in our concession areas present a risk of hotspots starting. To prevent this, we have raised awareness regarding fire prevention and suppression including installing boards prohibiting fishing in the rivers within our plantations. Most importantly, we continue to invest in our Fire-Free Village Programme (FFVP) to strengthen awareness on fire risks among the local community, believing that prevention is the best approach.

In 2021, we had zero fire incidents. We did have four hotspot incidents in our concessions (PT Inti Indosawit Subur). Our Fire and Prevention Management team immediately conducted further investigation and field checks and determined that no fires were found. These cases are now closed.

All incidents of hotspots are recorded in our grievance log here.

In total, all 16 villages under our Fire-Free Village Programme were successful in keeping their villages free of fires.

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‘Zero Burning’ and ‘No-Peat’ Policy

In 1994, we implemented a strict ‘zero burning’ policy for land clearing for all future replanting. Our suppliers and smallholders are also required to adhere to this policy.

Recognising that planting on highly flammable peatland is also a major cause of forest fires, we also implemented a strict ‘no-peat’ policy and prohibit developments on peatland of any depth. For more information on our approach to the protection of peatland, go to page 50.

Responding to fire incidents

To prevent fire incidents from happening, we provide training for our employees in each region, per module, annually. Training modules include spotting fire risks, fire drills and basic fire-fighting methods.

To ensure that we are ready to respond to hotspots or fires if they occur, we have the following emergency response measures in place, working in close partnership with the local fire brigade:

• Dedicated team monitoring occurrence of hotspots using satellite imagery
• Operational teams sent out to attend to emergency situations
• Providing fire equipment and infrastructure to combat and extinguish fire occurrences

Fire-Free Alliance (FFA): Working Together for A Fire-Free Indonesia

We are a member of FFA, a voluntary multi-stakeholder group - consisting of forestry and agriculture companies, NGOs and other partners - committed to working together to achieve lasting solutions for a fire-free Indonesia. As a member, we share data and information to the FFA Secretariat and also conduct discussion with other members to better address problems of persistent fires and transboundary haze in Indonesia.

Fire-Free Village Programme

In 2016, we launched our Fire-Free Village Programme (FFVP) with ten villages – eight in Riau and two in Jambi. The FFVP is a holistic programme designed to engage and support the local community to use alternatives to slash-and-burn methods to clear their land. Such methods of community engagement have been recognised as a proven method for fire prevention.

When selecting villages to participate in FFVP, we identify villages in the vicinity of our estates as well as villages that are prone to fire – for example, those located in peatland area or with recurring fire incidents.

Today, we work with 16 villages in Riau and Jambi covering 343,276 hectares of land to prevent fires.

Number of Villages in our FFVP

<table>
<thead>
<tr>
<th>Number of Fire-Free Villages</th>
<th>Villages</th>
<th>Total Land Covered (Ha)</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Riau</td>
<td>1. Rantau Baru</td>
<td>173,006</td>
<td>28,974</td>
</tr>
<tr>
<td></td>
<td>2. Tambak</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Lubuk Ogong</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Sebang</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Bagan Lima</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Solol</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Laiang Kang</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Delik</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. Kuala Teusan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jambi</td>
<td>1. Teriti</td>
<td>170,270</td>
<td>16,380</td>
</tr>
<tr>
<td></td>
<td>2. Muara Sekalo</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Semambu</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Tuwo Sumay</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Sua-Sua</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Lubuk Bernai</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Lubuk Lawas</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To implement our FFVP, we work closely with stakeholders, such as the Indonesian National Armed Forces, police, environmental affairs and forestry ministry’s fire task force “Manggala Agni”, and the village communities, collaborating with them on activities such as joint patrolling, training and knowledge sharing.

Our FFVP consists of the following components:

1. **Enhancing Community Awareness**
   - Engaging with the local community to increase their awareness on the negative health impact of fire and haze. To do this, we appoint a group consisting of our estate managers, village crew leaders, members of Fire Care Community (Masyarakat Peduli Api) – a community that voluntarily controls forest and land fires in their village - and sub-village heads to coordinate and exchange information regarding fire occurrences within our operations and in the community. Members use instant messaging platform or mobile phone to alert us on cases.
   - This is an important component as one of the main causes of fire in Indonesia is human activities, such as the discarding of burning cigarette buds and land clearing.

2. **Training Community Leaders**
   - Identifying Community Fire Crew Leaders from villages and training them as:
     - Fire prevention advocates
     - Fire suppression specialists
   - Training is conducted by the Manggala Agni, police, Human Resource Training Center of the Ministry of Environment and Forestry, and NGOs.

   The Community Fire Crew Leaders undergo up to 52 hours of classroom training at the Training Centre for Environment and Forests, as well as three days of practical lessons. During training, participants learn the basic skills needed to use a GPS-based Android, execute fire patrol, inform the public about fire safety and prevention, and participate in carefully controlled fire simulations.

   In 2021, a series of fire awareness socializing events was held to replace the training sessions, with estimated of 300 people in attendance, including villagers and crew leaders.

3. **Assisting with Land-Clearing Alternatives**
   - Providing the community with alternatives to slash-and-burn land clearing techniques, as well as heavy machinery to adopt these alternatives.

4. **Providing ‘No-Burn’ Incentives to Develop the Local Economy**
   - Villages which successfully prevent fires in their village for one year will be rewarded with IDR100 million, which can be used to improve village infrastructure and amenities. A partial reward of IDR50 million is also given to villages which limit burning to under one hectare. Instead of distributing the reward in cash, we provide funding which they can use to develop the local economy. In the past, villages have used the reward for the construction of roads, bridges and places of worship, or the setting up of businesses, such as a motorcycle wash station and handicraft stalls.

5. **No-Burn Incentives** Distributed
   - Since 2017, we have distributed a total of IDR2.35 billion to incentivise villagers to prevent fires in their community.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Villages</th>
<th>Amount Distributed (IDR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>5</td>
<td>500 million</td>
</tr>
<tr>
<td>2018</td>
<td>11</td>
<td>1,050 million</td>
</tr>
<tr>
<td>2019</td>
<td>6</td>
<td>500 million</td>
</tr>
<tr>
<td>2020</td>
<td>1</td>
<td>100 million</td>
</tr>
<tr>
<td>2021</td>
<td>4</td>
<td>200 million</td>
</tr>
</tbody>
</table>

**Working with New Villages**
We undertake the following steps before including new villages to the FFVP:

1. **Assessing fire risk**: Surveys are conducted to ascertain which villages have a higher risk of fires.
2. **Garnering support from stakeholders**: To achieve success in the FFVP, it is crucial that we have the full support of government agencies, such as the Coordination Board for Agriculture, Fishery and Forestry (Bakorluh – Badan Koordinasi Penyuluhan Pertanian, Penkanan dan Kehutanan), and the Estate Crop Agency (Dishutbun – Dinas Kehutanan dan Perkebunan).
3. **Signing of MOU with village head**: Once we are ready to accept new villages into the programme, an agreement is signed between the village head and Asian Agri.
4. **Electing village crew leaders**: Our HR department will select members from the community to be village crew leaders if they fulfill certain criteria, such as physical fitness, previous fire-fighting experience, and strong communication skills. Their main role is to prevent fires, conduct patrols, firefight, and report to stakeholders, such as the village head.
5. **Training village crew leaders**: We conduct training in partnership with stakeholders, such as the Instructor Coordination Board (Badan Koordinasi Penyuluhan), and the Training Center for Environment and Forestry (Balai Diklat Lingkungan Hidup dan Kehutanan).
Pledge to prevent forest and land fires during COVID-19

Despite the ongoing pandemic, we remain committed to fire prevention by implementing the Fire-Free Village Programme (FFVP) in five more villages around our operational sites.

In June 2021, we signed a FFVP MOU with Teriti village, Tuo Sumay village, Muara Sekalo village, Suo-Suo village, and Semambu village, and continue to work closely with village officials, government agencies, TNI and Polri to assist and support fire prevention activities and provide firefighting assistance, when needed.

The FFVP was launched in Jambi in 2017 and has proven effective in preventing forest and land fires. Since joining, Teriti and Muara Sekalo are now fire-free villages. In Tuo Sumay, Suo-Suo, and Semambu, fires have significantly decreased at around two hectares per year.

Helping the ‘Fire Aware Community’ tackle forest fires

The involvement of communities who live in fire-prone areas is vital to prevent the seasonal forest fires from happening.

Local members of the Maro Sebo Ilir district, Batanghari regency, Jambi, formed a forest-fire prevention team, called the Fire Aware Community (FAC). As part of our FFVP, we have provided basic fire-fighting training to around 60 members, including theoretical training on how to stay calm and act in a fire crisis, as well as providing hands-on expertise and training.

The FAC from Tambak village in Riau, which is part of our FAC community, also continues its fire-prevention goal by conducting fire patrols to prevent forest and land fires, while observing safe distancing measures. Since 2020, it has been a fire-free village and aims to maintain this status.

Collaborating with communities and authorities to address forest fires

We have launched the ‘Fire-Free Community programme’ to take proactive and preventative steps to address forest and land fires in areas where we operate.

As part of the programme, our employees at Inti Indosawit Subur (IIS) which operates in Maro Sebo Ilir, Batanghari Regency, provided basic fire training to plasma and Swadaya smallholders in March.

We are also working with the Maro Sebo Ilir government, Maro Sebo Ilir police, Koramil 415-04, POKDARKAMITIBMAS, and Maro Sebo Ilir firefighters to create a joint and united force to combat forest fires.

Moving Forward

Preventing hotspots and fires is a key priority for us to continue operating in a responsible manner. Despite our best efforts, we still face challenges in preventing hotspots. To better understand where our gaps and risks lie, we examine information on hotspots gathered by our Fire and Prevention Management team, satellite imagery and our grievance procedure. This allows us to make continuous improvements to our FFVP and other awareness-raising efforts for smallholders and the community. Over the years, we have added different enhancements to our programmes and will continue to do so in the years ahead.
Meeting our Net Zero Emission Targets

By 2030, we aim to achieve net zero emissions from land use. To do this, we will be hiring an external consultant in 2022 to help us assess our carbon footprint across our operations. This will help us establish a baseline to further reduce our carbon emissions.

Over the years, we have taken steps to reduce our carbon footprint in the following areas:

- **GHG emissions in our estates:** In particular peatland oxidation, land conversion and synthetic fertilisation, which are the major sources of GHG emissions in our estates.
- **Palm Oil Mill Effluent (POME) in our mills:** In particular methane emission, which is the largest source of emissions in our mills.

This is based on our GHG calculations using the RSPO Palm GHG Calculator and ISCC Guidelines, which we have been using since 2012 to better understand the main contributors of GHG emissions in our estates and mills.

Meeting our Energy Needs

To meet our energy needs, we rely on a combination of renewable and non-renewable sources.

In 2019, we started using B30 biofuel for our heavy equipment in some of our estates and mills, which contains 30% of biodiesel. By 2020, all of our operations are using B30 biofuel as mandated by the government.

<table>
<thead>
<tr>
<th>Energy Produced</th>
<th>Main sources</th>
<th>Main usage</th>
</tr>
</thead>
</table>
| Proceded from third party | Biodiesel (B30) | • Transportation and heavy equipment for cultivation and field maintenance  
• Electricity in housing complexes and offices  
• Diesel generators to support mill process |
| Produced by Asian Agri | Fibre, palm shell, and biogas | • Operating our mills & KICPs  
• Providing electricity to our housing complex and local communities where rural electrification is usually a challenge |

**Note:** We also sell excess electricity to the grid.

### Total energy consumption within the organisation (TJ)

<table>
<thead>
<tr>
<th>Energy Consumption</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel consumption</td>
<td>333</td>
<td>348</td>
<td>398</td>
</tr>
<tr>
<td>Total fuel consumption from non-renewable sources</td>
<td>12,416</td>
<td>12,277</td>
<td>13,213</td>
</tr>
<tr>
<td>Total fuel consumption from renewable sources</td>
<td>5,959</td>
<td>5,919</td>
<td>5,959</td>
</tr>
<tr>
<td>Electricity, heating and steam consumption</td>
<td>613</td>
<td>576</td>
<td>588</td>
</tr>
<tr>
<td>Electricity consumption (renewable and non-renewal)</td>
<td>613</td>
<td>576</td>
<td>588</td>
</tr>
<tr>
<td>Electricity, heating and steam sold</td>
<td>6</td>
<td>8</td>
<td>18</td>
</tr>
<tr>
<td>Total energy consumption</td>
<td>13,368</td>
<td>13,209</td>
<td>14,217</td>
</tr>
</tbody>
</table>

**Note:** Asian Agri does not purchase and sell energy for steam, heating and cooling.

### Diesel consumption (litres)

<table>
<thead>
<tr>
<th>Region</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Sumatra</td>
<td>3,237,494</td>
<td>2,780,851</td>
<td>2,846,596</td>
</tr>
<tr>
<td>Riau</td>
<td>4,117,993</td>
<td>4,410,123</td>
<td>4,941,970</td>
</tr>
<tr>
<td>Jambi</td>
<td>1,416,912</td>
<td>1,904,409</td>
<td>2,519,406</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>8,772,359</strong></td>
<td><strong>9,095,383</strong></td>
<td><strong>10,307,971</strong></td>
</tr>
</tbody>
</table>

### GHG emissions sources and sinks (MT CO2e) - RSPO Palm GHG in 2021

<table>
<thead>
<tr>
<th>Emission Source</th>
<th>GHG Emissions (MT CO2e)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land clearing/conversion</td>
<td>499,793</td>
</tr>
<tr>
<td>Fertiliser</td>
<td>72,568</td>
</tr>
<tr>
<td>NZO</td>
<td>262,016</td>
</tr>
<tr>
<td>Estate fuel consumption</td>
<td>20,149</td>
</tr>
<tr>
<td>Peat oxidation</td>
<td>1,415,981</td>
</tr>
<tr>
<td>Crop sequestration</td>
<td>-473,737</td>
</tr>
<tr>
<td>Methane from POME</td>
<td>303,216</td>
</tr>
<tr>
<td>Mill fuel use</td>
<td>3,390</td>
</tr>
<tr>
<td>Grid electricity utilisation</td>
<td>1146</td>
</tr>
<tr>
<td>Export excess power</td>
<td>-3</td>
</tr>
<tr>
<td>Palm Kernel Shell (PKS) sales</td>
<td>-426,715</td>
</tr>
<tr>
<td>Emissions from third party Fresh Fruit Bunches (FFB)</td>
<td>1,162,999</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,840,803</strong></td>
</tr>
</tbody>
</table>

**Note:** We use the RSPO PalmGHG Version 4 Calculator to calculate emissions for the different categories above deriving from our RSPO-certified palm oil operations.

### Total scope 1 and scope 2 GHG emissions

<table>
<thead>
<tr>
<th>Scope</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope 1 GHG emissions (tCO2eq)</td>
<td>2,577,114</td>
<td>2,660,082</td>
<td>2,544,778</td>
</tr>
<tr>
<td>Scope 2 GHG emissions (tCO2eq)</td>
<td>1,146</td>
<td>1,240</td>
<td>1,920</td>
</tr>
</tbody>
</table>

**Note:** We calculate our Scope 1 and 2 GHG emissions by mapping the categories from the RSPO PalmGHG Version 4 Calculator against the definition of Scope 1 and 2 emissions based on the GHG Protocol. Moving forward, we will be conducting a carbon-footprinting exercise across our operations and aim to report our Scope 1 and 2 emissions based on the GHG Protocol. The relevant grid emissions factors have been used to convert purchased electricity to Scope 2 indirect emissions.
To reduce our carbon footprint, we rely on a multi-pronged strategy with different approaches across our supply chain:

### Reducing our Carbon Footprint

#### ‘No Peat’ Policy
No Peat Policy

We adopt a firm stance and strictly prohibit new developments on peatland of any depth. This is because we recognise that one of the biggest GHG emissions from the palm oil industry is expansion on peatland, which releases high levels of stored carbon into the atmosphere.

For more information on our approach to peatland protection, please go to page 50.

#### Protecting Conservation Areas and Restoring Ecosystems

For more information on our approach to protecting conservation areas and restoring ecosystems, go to pages 48-49.

#### Reducing the Use of Fertilisers and Chemicals

To reduce GHG emissions in our plantations, we continue to seek sustainable practices such as:

- **Reduction of fertilisers**: Partially substituting synthetic fertilisers with empty fruit bunches (EFBs) and POME which is pumped directly to flat-beds in our estates.
- **Reduction of chemicals**: Reducing the use of chemicals and pesticides by implementing an Integrated Pest Management approach.

For more information on our approach to waste and chemicals, go to pages 65-74.

### In our Plantations

**‘No Peat’ Policy**

We adopt a firm stance and strictly prohibit new developments on peatland of any depth. This is because we recognise that one of the biggest GHG emissions from the palm oil industry is expansion on peatland, which releases high levels of stored carbon into the atmosphere.

For more information on our approach to peatland protection, please go to page 50.

### In our Mills & Kernel Crushing Plants (KCPs)

**Biogas Plants**

We currently have 10 biogas plants in our mills with a production potential of 20kWh of electricity in total. We did not build any new biogas plants in 2021. In pursuit of AA 2030’s target for zero emissions, we have plans to gradually add methane capture facilities for the remainder of our mills.

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1. Based on RSPO PalmGHG calculation version 4.0, which we have been utilizing since 2019.
2. In line with ISCC GHG calculations.

---

<table>
<thead>
<tr>
<th>Region</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>North Sumatra</td>
<td>2,146,016</td>
<td>2,261,436</td>
<td>2,387,095</td>
</tr>
<tr>
<td>Riau</td>
<td>608,000</td>
<td>692,912</td>
<td>764,037</td>
</tr>
<tr>
<td>Jambi</td>
<td>87,787</td>
<td>81,783</td>
<td>75,685</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,840,803</strong></td>
<td><strong>3,026,131</strong></td>
<td><strong>3,226,817</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GHG Emission</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total GHG emissions (tCO2eq)</td>
<td>2,840,803</td>
<td>3,026,131</td>
<td>3,226,817</td>
</tr>
<tr>
<td>Total GHG emissions intensity (tCO2eq/t CPO)</td>
<td>3.34</td>
<td>3.51</td>
<td>3.43</td>
</tr>
</tbody>
</table>
Investing in Renewable Energy Sources (e.g. solar)
We will be investing in renewable energy sources such as solar power. We are also exploring other options of renewable energy sources as a substitute when sunlight can be scarce during the monsoon season. We aim to present further updates in upcoming reports.

Reducing Energy Consumption and Improving Energy Efficiency
To reduce energy consumption and improve energy efficiency, we are always on the lookout for ways to optimize our daily operations and adopt sustainable practices. Some examples of our efforts include:

- More efficient transportation management: Optimizing trucking usage - for example, to transport FFB and EFB in single trips instead
- Investing in SCADA (supervisory control and data acquisition) system to monitor the performance of our machinery and increase process efficiency
- Investing technologies to achieve higher production with lower energy consumption in our mills
- Conducting an efficiency analysis every month to understand the amount of energy used per tonne of Crude Palm Oil (CPO), Palm Kernel (PK) and Crude Palm Kernel Oil (CPKO) produced. This will help us to plan targeted strategies to further reduce energy use
- Raising awareness on saving energy: Implementing eco-green mindset to reduce energy consumption among our employees (e.g. for electricity, air conditioning, water)

Electricity generated by our biogas plants and other sources\(^3\) (MWh)

<table>
<thead>
<tr>
<th>Source</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total generated</td>
<td>172,039</td>
<td>168,263</td>
<td>162,149</td>
</tr>
<tr>
<td>Sold to grid</td>
<td>1.4%</td>
<td>4.3%</td>
<td>2.9%</td>
</tr>
<tr>
<td>Used by our housing complexes</td>
<td>5.7%</td>
<td>5.4%</td>
<td></td>
</tr>
<tr>
<td>Used for our own operations</td>
<td>93.3%</td>
<td>94.5%</td>
<td>91.7%</td>
</tr>
</tbody>
</table>

Energy intensity of our biogas plants and other sources (MWh/MT CPO+CPKO)

<table>
<thead>
<tr>
<th>Year</th>
<th>Energy Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2019</td>
<td>0.134</td>
</tr>
<tr>
<td>2020</td>
<td>0.136</td>
</tr>
<tr>
<td>2021</td>
<td>0.143</td>
</tr>
</tbody>
</table>

\(^3\) Other sources of electricity generation include diesel genset and steam turbine.

1. Palm Oil Mill: The biogas plants are constructed at our palm oil mills to take advantage of the readily available supply of leftover biomass from the production process - or Palm Oil Mill Effluent (POME). Before the biogas plants were constructed, POME would only be used for land application, either as a fertiliser to maintain soil moisture or to prevent soil erosion.

2. POME & Digester Tank: The POME is fed into a digester tank, where it is converted into methane by bacteria.

3. Generator: The gas is then sent to the power plant, which generates 1.2-2.2MW of power per biogas plant depending on whether the biogas plant has one or two gas engines each.

4. Houses: The electricity generated is used for our own operations - such as operating palm oil mills and Kernel Crushing Plants (KCPs) - and provide electricity to homes in our estates. Excess electricity is sold to the grid.
To ensure that resources continue to be available for future generations, we implement sustainable practices in our management of water use. We also invest efforts to manage our discharge in a sustainable manner so as to safeguard the environment and health of communities. Furthermore, we reuse and recycle waste generated from our operations as much as possible.

Resource Use

To ensure that resources continue to be available for future generations, we implement sustainable practices in our management of water use. We also invest efforts to manage our discharge in a sustainable manner so as to safeguard the environment and health of communities. Furthermore, we reuse and recycle waste generated from our operations as much as possible.

Sustainable Water Use

Water consumption

We use water in our operations for the following purposes, in order of the largest volume first:

- Power generation: Water is used in our steam turbines for power generation.
- Sterilisation of fresh fruit bunches (FFB): Steam sterilization of the FFBs facilitates fruits being stripped from the bunches. It also softens the fruit mesocarp for digestion, facilitates the release of oil, and minimizes kernel breakage.
- Household consumption: Daily water use by our workers and their families including for drinking, washing and cooking.
- Irrigation and nurseries: Water is required for seedlings in nurseries. Plantations that are rain-fed do not require irrigation, even during drier seasons.

We implement a robust water monitoring system for our operations to ensure that water is used sustainably. We do not operate in water stressed areas.

We draw on two sources to meet our water needs:

- Surface water (Rivers): We draw water from nearby sources for the operations of our mills and for use in our housing complexes (occupied by our employees/workers and their families). All water withdrawn is treated to ensure chemical content is safe for use.
- Groundwater: We draw groundwater mainly for domestic and agricultural purposes, such as irrigation in nurseries beyond the reach of our mill pumps.

Water withdrawal by source (Mega Litre)

<table>
<thead>
<tr>
<th>Region</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rivers</td>
<td>Ground Water</td>
<td>Rivers</td>
</tr>
<tr>
<td>North Sumatra</td>
<td>1,946.34</td>
<td>594.54</td>
<td>1,913.84</td>
</tr>
<tr>
<td>Riau</td>
<td>372.71</td>
<td>347.99</td>
<td>2,770.10</td>
</tr>
<tr>
<td>Jambi</td>
<td>1,498.18</td>
<td>159.53</td>
<td>1,294.54</td>
</tr>
<tr>
<td>Total</td>
<td>6,557.23</td>
<td>1,102.10</td>
<td>5,978.47</td>
</tr>
<tr>
<td>Total water withdrawn</td>
<td>7,659.29</td>
<td>7,216.21</td>
<td>8,039.63</td>
</tr>
</tbody>
</table>

Note: All of our water withdrawn is freshwater, whether from rivers or groundwater, where the content of total dissolved solid is less than 1000 mg/L. Water withdrawal was reported in m³ in last Sustainability report 2019-2020.

Waste Management

We produce both organic and inorganic waste in our operations:

- Organic waste (reused): Empty Fruit Bunches (EFB), palm oil mill effluent (POME), palm fibres, palm shells
- Inorganic waste: Used lubricant, chemical packaging, oil-stained rags, etc.
Hazardous waste is stored in a dedicated area and closely monitored before collection by contracted licensed service providers that are approved by the government. Non-hazardous waste such as domestic waste will be disposed at a dedicated landfill sites in our concessions, while other waste such as scrap metal is collected by third-party companies to be disposed of, recycled or reused accordingly.

Managing Inorganic Waste
Hazardous waste is stored in a dedicated area and closely monitored before collection by contracted licensed service providers that are approved by the government. Non-hazardous waste such as domestic waste will be disposed at a dedicated landfill sites in our concessions, while other waste such as scrap metal is collected by third-party companies to be disposed of, recycled or reused accordingly.

Reducing Organic Waste
We seek to reuse waste as much as possible in our operations and have successfully reduced the amount of organic waste produced:

<table>
<thead>
<tr>
<th>Type of waste</th>
<th>Reused for/as</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid waste (e.g. palm fibres, palm shells)</td>
<td>Power generation: Used as biofuel for boilers to run steam turbines in our mills, providing a renewable source of energy. Around 82.6% of palm kernel shell produced in 2021 was also sold to third party buyers to be used as biofuel.</td>
</tr>
<tr>
<td>Waste by-products (e.g. EFB, POME)</td>
<td>Substitutes for chemical fertiliser: After determining that these by-products contain nutrients to make them suitable as fertilisers, our R&amp;D team then developed a set of guidelines on dosage intensity and frequency, in order for us to obtain optimum yield. Go to pages 21-22 for more info on our R&amp;D efforts</td>
</tr>
</tbody>
</table>

Managing Inorganic Waste
Hazardous waste is stored in a dedicated area and closely monitored before collection by contracted licensed service providers that are approved by the government. Non-hazardous waste such as domestic waste will be disposed at a dedicated landfill sites in our concessions, while other waste such as scrap metal is collected by third-party companies to be disposed of, recycled or reused accordingly.

Waste generated, diverted and disposed¹, by type (MT)

<table>
<thead>
<tr>
<th>Type of waste</th>
<th>2021</th>
<th>2020</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>EFB</td>
<td>899,145</td>
<td>890,145</td>
<td>-</td>
</tr>
<tr>
<td>POME</td>
<td>2,841,790</td>
<td>2,760,713</td>
<td>81,057</td>
</tr>
<tr>
<td>Fibre</td>
<td>673,836</td>
<td>673,836</td>
<td>-</td>
</tr>
<tr>
<td>Shell</td>
<td>318,259</td>
<td>315,492</td>
<td>-</td>
</tr>
<tr>
<td>Used Lubricant*</td>
<td>53.2</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Used Chemical Packaging*</td>
<td>18.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Lube Filler*</td>
<td>8.1</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Medical waste*</td>
<td>0.5</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Battery*</td>
<td>7</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Electronic waste*</td>
<td>0.8</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Used air filter*</td>
<td>0.3</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>4,697,118</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

¹Hazardous waste.

Safe Discharge of Effluents
All effluents from our operations are treated and monitored before being released into the stream or on land. Water used in the mills is either discharged as steam or POME, which is treated in open ponds following water quality parameters set by the Indonesian government, before being used as a substitute for fertilisers or discharged directly back to the river.

We engage external parties to conduct routine quality assessments to ensure that we comply with all Indonesian laws and regulations. For these assessments, we send samples of POME, river water and treated raw water to third party labs to check their COD and BOD parameters. This will help us to ascertain if COD and BOD parameters have been affected by our operations. The treated raw water, which is used for domestic consumption, is checked for health and safety (e.g. salmonella, e.coli).

Lowering BOD and COD levels
According to Indonesian government guidelines, the standard for biological oxygen demand (BOD) level for discharge in waterways is 100 mg/l, and 350 mg/l for chemical oxygen demand (COD).

For land application of treated POME, a by-product of the milling process, we ensure that its BOD level is kept below the legal threshold of 5,000 mg/l. There is no COD standard for land application and the government only regulates the pH for POME in land application, which is between 6.0 to 9.0. To lower BOD and COD levels, we use pumps to circulate the effluent in the ponds. We also use sprayers and aerator pumps to ensure more oxygen is absorbed into POME. By doing these steps, we can lower the COD and BOD level to meet the standard required by regulation before discharge.

Average BOD & COD value of POME (mg/l)
In North Sumatra, Riau and Jambi, POME is applied as organic fertiliser in our plantations.

For POME applied on land as organic fertiliser
While most of our POME is applied as organic fertiliser, the exception is for our plantation on peatlands in North Sumatra, where POME is discharged into waterways with parameters being monitored to meet the regulated standards.

For POME discharged into rivers for peatland area

It is essential for us to control pests, parasites and weeds to ensure our oil palms remain healthy and continue to produce high yield. While the cheapest and most straightforward methods often require the use of chemicals for fertilisers and pesticides, these are often harmful to the environment and workers if not properly managed. Thus at Asian Agri, we are committed to managing pests and diseases and applying fertilisers only using sustainable practices.
Integrated Pest and Disease Management (IPM and IDM)

We implement an Integrated Pest and Disease Management (IPM and IDM) approach in our plantations, in line with standards established under the Agronomy Policy Manual (APM). This means that while we do use chemicals to control pests and diseases, it is done selectively and used in combination with other biological and ecological controls:

- **Pest Surveillance:** Early warning systems allow for targeted pesticide application
  - A key feature of our IPM system is the use of pest surveillance, relying on a comprehensive array of tools to monitor pest populations on a regular basis. We implement early warning systems to detect pests, resulting in smaller areas requiring treatment. The data gathered also enables us to determine the appropriate course of action, such as selecting the right methods of pest control and applying the right dosage of pesticides. This allows us to manage pests and maintain optimal plantation productivity, while minimising our environmental impact.

- **Biological and Ecological Controls:** Natural methods to reduce pest population
  - We use a variety of methods such as:
    - Destroying breeding sites.
    - Using traps: For example, we use sex pheromones to attract and trap adult rhinoceros beetles. To manage the population of moths, we use light traps and food bait.
    - Breeding predator species: For example, we breed specific species of insects in our estate insectary and release them periodically to augment natural populations in the field. We avoid overspraying weeds in the field to maintain a natural habitat for the predators. We also house and breed barn owls to control rodents.
    - Growing specific plant species (known as ‘host plants’) to attract predatory insects to keep pest populations in check. Examples include white alder and coral vine, which are host plants for predators of the nettle caterpillar, as well as Cassia cobanensis which is the host plant for predators of bagworms.
    - Using naturally occurring pathogens, such as viruses and fungi as a substitute for chemical pesticides.
    - Protecting the habitat of natural predators: We retain portions of matured land adjacent to newly replanted area in order to avoid disturbing the habitat of natural predators.

- **R&D to develop more resistant plant material**

**Pest Surveillance**

- Pest & Diseases
- Biological and Ecological Controls
- Selective application of Pesticides
- R&D to develop more resistant plant material

**Rearing barn owls to keep rat populations in check**

We house and breed barn owls (Tyto alba) in our plantations as they are natural predators of rat pests. Each pair of barn owl can cover 25ha of plantations. At 6 months of age, the owls are ready to leave the nests in the cage to hunt for prey. Unlike other predatory birds of prey that rely on speed, owls rely more on their acute hearing ability to detect the location of their prey.

Asian Agri has a dedicated team to monitor and maintain the health of these owls.

**Attracting assassin bugs to fight off nettle caterpillars**

Another natural predatory insect that we rely on is the Sycanus, a species of assassin bug. These bugs can help to eradicate nettle caterpillars - another common pest in the plantations. To rear these bugs, we grow species of flowers that are home to the Sycanus, such as Turnera subulata.
Where pesticides are required, we apply them in a targeted and limited manner. For example, pesticides are applied via trunk injection or root infusion technology, or by spraying the shoots and axils of young palms. We also monitor the usage of the types and dosage of pesticides. Since November 2019, we have prohibited the use of World Health Organisation (WHO) Class 1A and Class 1B pesticides, chemicals listed under the Stockholm Convention and Rotterdam Convention, as well as the use of paraquat. The pesticides we buy are all registered products.

To ensure the safety of our workers when handling pesticides and other chemicals, we provide them with adequate PPE. We train them how to properly apply each type of pesticide and undergo regular medical check-ups twice a year.

We also develop new planting material which is more tolerant towards diseases, in particular Ganoderma. Our research team is also focusing on the most suitable techniques and methods to control pest populations.

### Selective Application of Pesticides: Limiting the types and dosage of pesticides

Where pesticides are required, we apply them in a targeted and limited manner. For example, pesticides are applied via trunk injection or root infusion technology, or by spraying the shoots and axils of young palms.

We also monitor the usage of the types and dosage of pesticides. Since November 2019, we have prohibited the use of World Health Organisation (WHO) Class 1A and Class 1B pesticides, chemicals listed under the Stockholm Convention and Rotterdam Convention, as well as the use of paraquat. The pesticides we buy are all registered products.

To ensure the safety of our workers when handling pesticides and other chemicals, we provide them with adequate PPE. We train them how to properly apply each type of pesticide and undergo regular medical check-ups twice a year.

### Total pesticides applied (in kg or L)

<table>
<thead>
<tr>
<th>Year</th>
<th>Fungicide</th>
<th>Herbicide</th>
<th>Insecticide</th>
<th>Rodenticide</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>55</td>
<td>241,477</td>
<td>140,719</td>
<td>19,056</td>
<td>401,308</td>
</tr>
<tr>
<td>2020</td>
<td>65</td>
<td>201,206</td>
<td>74,773</td>
<td>9,454</td>
<td>285,498</td>
</tr>
<tr>
<td>2019</td>
<td>79</td>
<td>211,523</td>
<td>95,539</td>
<td>14,974</td>
<td>322,115</td>
</tr>
</tbody>
</table>

### R&D to Develop More Resistant Plant Material

We also develop new planting material which is more tolerant towards diseases, in particular Ganoderma. Our research team is also focusing on the most suitable techniques and methods to control pest populations.

### R&D to control infection of oil palms by root pathogen

One of the major threats to oil palms is the root pathogen, Ganoderma boninense, which infected and killed thousands of our oil palm trees in North Sumatra in the past, leading to early replanting cycles. After years of research and evaluation, our R&D team developed an IDM strategy against the pathogen which includes:

- Planting pathogen-tolerant oil palm varieties
- Proper land preparation to reduce the amount of Ganoderma inoculum in the soil
- Census and removal of infected palms to reduce the risk infection of healthy palms
- Inoculating oil palm seedlings with a fungal bioagent for added protection

Both the fungal bioagent and tolerant varieties of oil palms (Topaz GT D x P) were developed by our R&D team.

### Fertiliser Usage

While fertilisers are crucial for oil palm cultivation, they are often expensive – constituting up to 35% of CPO production costs – as well as having negative impacts on our workers, the environment and communities. For example, excessive fertilisation can lead to severe pollution of groundwater and waterways.

As such, our approach is to apply inorganic fertilisers following the 4C stewardship approach (Correct dosage, Correct method, Correct timing, Correct placement) and reduce the use of inorganic fertilisers as much as possible, replacing them with organic fertilisers from our waste by-products.

### Using organic fertilisers

Our mills produce significant amounts of waste by-products, namely empty fruit bunches (EFB), palm oil mill effluent (POME) and decanter solids. Currently, 100% of all waste by-products are used for land application on mineral soils, in line with rules and specifications by the Ministry of Agriculture.

This brings about several benefits:

- Reduces waste
- Improves sustainability of the soil by incorporating organic matter and nutrients, while conserving moisture
- Cost effectiveness from partial substitution of inorganic fertilisers

### Using inorganic fertilisers

However, organic fertilisers are insufficient for our oil palms, and can only supplement but not replace inorganic fertilisers. Thus, we still have to rely on the use of inorganic fertilisers.

In general, younger oil palms require higher usage of inorganic fertilisers for optimum growth, particular during their prime years of 8-18 years of age. When the oil palm reaches around 23 years of age, or 2 years before they are felled, we stop applying fertilisers.
We adopt a ‘site-specific’ fertiliser programme for our estates, relying on a dedicated team within our R&D department to provide recommendations on the proper application of both organic and inorganic fertilisers. For each specific field, our researchers recommend the right type of fertiliser to be applied and to follow the 4C fertiliser stewardship approach. This ensures we produce the maximum yield at the lowest fertiliser dosage. We also conduct annual leaf tissue analysis and soil survey analysis every five years to monitor the health of the oil palms, which ensures that we do not over-apply fertilisers.

‘Site-specific’ fertiliser programme

We adopt a ‘site-specific’ fertiliser programme for our estates, relying on a dedicated team within our R&D department to provide recommendations on the proper application of both organic and inorganic fertilisers. For each specific field, our researchers recommend the right type of fertiliser to be applied and to follow the 4C fertiliser stewardship approach. This ensures we produce the maximum yield at the lowest fertiliser dosage. We also conduct annual leaf tissue analysis and soil survey analysis every five years to monitor the health of the oil palms, which ensures that we do not over-apply fertilisers.

Soil Management

Good quality soil is essential to produce oil palm. Most of our estates are developed on mineral soil. As Sumatra has a humid and tropical climate, it is imperative to protect the organic matter in the topsoil from degradation and reduce soil erosion. We use soil maps of our estates to guide our soil management process. To mitigate soil erosion, we employ the following methods:

- Proper use of fertilisers.
- Using pruned oil palm fronds: Terracing and stacking of fronds along the contour of estates by using slopes to reduce surface run-off.
- Constructing planting platforms and soil traps to reduce soil erosion in steeper areas.
- Planting legume cover crops in newly cleared areas before planting oil palms. In the mature phase of the oil palm tree lifecycle, we also maintain a good cover of mixed natural vegetation.
- Selective weeding to avoid removing certain species which protect soil.

Protecting the Rights of Indigenous and Local Communities

In line with our Sustainability Policy and NDPE commitments, we are firmly committed to the ‘no exploitation’ of indigenous and local communities, wherever we operate. We respect and recognise their rights to give or withhold their free, prior and informed consent (FPIC) to the utilisation of lands of which they hold – legal, communal or customary. We will also ensure a transparent and legal land allocation process.

At Asian Agri, the risk of violating such rights is low as we have not operated on new land since 2003. Our focus is instead on replanting and intensification efforts on existing land. We also conducted a Social Impact Assessment, adhering to FPIC principles, which revealed that no indigenous communities are currently located in or near our areas of operation.
We are committed to work in a fair and transparent manner to resolve verifiable complaints and conflicts with the local community. We also developed a transparent grievance mechanism system to ensure that all grievances and conflicts are handled in an accountable manner.

We have a dedicated team of more than 250 employees involved in engaging smallholders and local communities near or within our plantations daily, enabling us to build a stronger relationship with the community and to address any conflicts that may arise.

Social Impact Assessments
In line with government regulations, we conduct a Social Impact Assessment in line with FPIC principles before commencing any major activities. This assessment is included in our Environmental Impact Assessment (Analisis Dampak Lingkungan – AMDAL).

We also engaged Lingkar Komunitas Sawit (LINKS) – an NGO providing consulting services – to examine and strengthen our approach to managing the social aspects of our impact assessments, by starting with several companies in each province.

Driving Rural Development
At Asian Agri, we believe in the importance of leveraging on our unique position to support rural development in the communities where we operate. While we achieve these aims primarily through our smallholder programmes (please go to pages 31-32 for more information), we also implement CSR programmes to support rural communities located near our operations. We have set out ambitious targets in AA2030 to support the livelihood and access to education for rural communities surrounding our area, ultimately aiming to help them achieve zero extreme poverty.

To better understand the needs of the local community, we adopt a participatory approach which includes informal and formal dialogue with community leaders. This way, we can develop more targeted CSR programmes to address their needs.

Livelihood
Our main efforts to provide rural communities with livelihood opportunities lie in our smallholder empowerment programmes. For more information, go to pages 31-32.

To help the local community establish Small, Medium Enterprises (SMEs), we have also begun running workshops to encourage entrepreneurship. For example, we worked with the Lampisi village youth organisation, Karang Taruna, in April 2021 to provide motorbike washing equipment to youths in the community to develop their entrepreneurial and vocational skills.

Education
Recognising the importance of education for economic development, we seek to raise educational standards in rural communities by:

- **Training teachers:** We recognise that teachers are the main agents in delivering high-quality education and develop them through training and empowerment programmes.

- **Renovating existing schools, facilities and infrastructure:** We built school libraries, as well as provide schools with chairs and desks, school buses and sanitation facilities. Ahead of National Education Day in May 2021, we also donated equipment, toys and learning tools to support children and teachers at the Salwaa Early Childhood Education School in Gonting Malaha village in Bandar Pulau district, North Sumatra, to boost early childhood education and strengthen learning at the school.

- **Providing scholarships to students from elementary school to university:** through our ‘Sayap Garuda’ programme. In total, we distributed 188 scholarships in 2021, up from 150 two years ago.
Number of students receiving scholarships

<table>
<thead>
<tr>
<th>Education Level</th>
<th>North Sumatra</th>
<th>Riau</th>
<th>Jambi</th>
<th>North Sumatra</th>
<th>Riau</th>
<th>Jambi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary</td>
<td>25</td>
<td>29</td>
<td>23</td>
<td>15</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>Middle School</td>
<td>19</td>
<td>16</td>
<td>14</td>
<td>15</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>High School</td>
<td>19</td>
<td>20</td>
<td>13</td>
<td>15</td>
<td>20</td>
<td>9</td>
</tr>
<tr>
<td>University</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Sub-total</td>
<td>67</td>
<td>69</td>
<td>52</td>
<td>49</td>
<td>70</td>
<td>31</td>
</tr>
<tr>
<td>Total</td>
<td>188</td>
<td></td>
<td></td>
<td>150</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: We did not run the scholarship programme in 2020 due to the COVID-19 pandemic.

Infrastructure

We provide electricity through our biogas plants and power generators in several of our operations. Excess power generated is channelled to the national grid or directly to our housing complexes for employees and their families.

We also build roads to open access to villages surrounding our operational areas. These villages are often remote and new roads help to connect villages with each other and with important trading sites, facilitating trade and contributing to economic development.

Fire Prevention

For more information on how we support rural communities to adopt alternative land-clearing methods to prevent uncontrolled fires, go to pages 52.

Healthcare, Sanitation and COVID-19 response

To strengthen the standards of healthcare and sanitation among local communities, we continued to invest in projects to improve water and sanitation facilities, healthcare infrastructure and nutrition this year:

- Building deep wells and improving drainage systems to provide clean water and sanitation facilities.
- Building new health clinics while renovating existing clinics and providing medicine and medical devices.
- Conducting free medical check-ups and treatments by partnering with Universitas Sumatera Utara. In June 2021, we organised free health check-ups in partnership with the Peranap District Public Health Centre for residents in Katipo Puro village in Peranap district, benefiting over 120 adults and children. We also used the clinics as a platform to raise community awareness on COVID-19.
- Providing food for infants to improve their nutrition.
Culture and Sports
To promote closer ties within the community, we upgrade sporting, cultural and religious infrastructure and sponsor events.

Every year, we sponsor events on special occasions for rural communities, such as competitive sport events (including volleyball, football and badminton) to commemorate Indonesia’s Independence Day or the anniversary of one of our mills. We also sponsor cultural events during festivals, such as breaking of fasts during Ramadan, or Halal bi halal after the Eid al-Fitr celebration, as well as meals during Christmas and Chinese New Year.

This year, we distributed 1,885 basic food packages to those less advantaged in the community near our operations in North Sumatra to welcome the end of the fasting month of Ramadan in May, Eid al-Fitr, as part of our Corporate Social Responsibility (CSR) programme. To mark Lebaran or Eid al-Fitr, we also distributed food packages to the community in Handil Jaya village in Jelutung district in Jambi.

Ahead of Eid al-Fitr, we donated to mosques and prayer rooms in Datuk Tanah Datar district and Ujung District Padang to help with repair work, aiming to bring positive impact to people in the local communities.

Disaster Relief
Indonesia is prone to natural disasters such as earthquakes, tsunamis and volcanic eruptions. To help the local communities cope with these events, we distribute basic necessities such as food, clothes, first aid and medicine. These humanitarian responses are usually carried out in collaboration with other companies, universities and other local institutions.

In April 2021, we donated 2,000 litres of cooking oil to the Ministry of Agriculture in Indonesia to help provide relief aid communities affected by the fatal floods and landslides in East Nusa Tenggara.

Materiality Assessment and Stakeholder Engagement
Materiality Assessment

We last conducted our materiality assessment in 2021, covering the sustainability risks and opportunities which are material to our business and our stakeholders.

The material assessment consisted of a five-stage process:

1. **Understanding our sustainability context**: To better understand the emerging global, regional and national developments in the palm oil industry, we conducted desktop research and identified 12 issues, to bring forward for stakeholder engagement in the next stage.

2. **Surveys**: We conducted an online survey with selected internal and external stakeholders, to better understand their perspectives on Asian Agri’s material sustainability issues. Survey participants were asked to prioritise the list of 12 material issues, which they felt were most important for us to manage.
For the surveys and interview phase, we engaged internal stakeholders such as the heads of department from across Asian Agri (e.g. R&D, corporate communications, operations & mills), as well as external stakeholders such as our buyers, smallholder associations, certification bodies, media and civil society organizations.

In 2021, we conducted a prioritisation exercise to better understand where Asian Agri can best contribute to the UN Sustainable Development Goals (SDGs). As a result of the exercise, we highlighted four pillars with ambitious and quantifiable targets: Smallholder partnership, inclusive growth, climate positive, responsible & sustainable production. These are all in line with our material topics.

Maintaining close and ongoing engagement with our stakeholders is important for us. This helps us to stay in touch with the interests and concerns of stakeholders that affect our business and collectively share ideas for implementing solutions and best practice. We also maintain open and transparent communication channels with our stakeholders, seeking constructive feedback from them to help improve our operations.

The table below provides a summary of our stakeholder efforts in 2021. It includes the key stakeholder groups and material ESG topics we focus on. We regularly review and improve our stakeholder engagement approach to ensure that it remains relevant.

**Our material ESG topics and AA2030**

In 2021, we conducted a prioritisation exercise to better understand where Asian Agri can best contribute to the UN Sustainable Development Goals (SDGs). As a result of the exercise, we highlighted four pillars with ambitious and quantifiable targets: Smallholder partnership, inclusive growth, climate positive, responsible & sustainable production. These are all in line with our material topics:

<table>
<thead>
<tr>
<th>Pillars</th>
<th>Material ESG topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smallholder Partnership</td>
<td>Sustainable Supply Chains, Smallholder Empowerment</td>
</tr>
<tr>
<td>Inclusive Growth</td>
<td>Employee Attraction, Management and Retention, Labour Rights and Workers Welfare, Occupational Health and Safety, Community Development</td>
</tr>
<tr>
<td>Climate Positive</td>
<td>Energy and Carbon Management, Biodiversity and Conservation, Fire Prevention and Management</td>
</tr>
<tr>
<td>Responsible &amp; Sustainable Production</td>
<td>Resource Use, Pest Management and Chemical Usage</td>
</tr>
</tbody>
</table>

**Stakeholder Engagement**

- Maintaining close and ongoing engagement with our stakeholders is important for us. This helps us to stay in touch with the interests and concerns of stakeholders that affect our business and collectively share ideas for implementing solutions and best practice. We also maintain open and transparent communication channels with our stakeholders, seeking constructive feedback from them to help improve our operations.

- The table below provides a summary of our stakeholder efforts in 2021. It includes the key stakeholder groups we have identified based on their interest and impact on our business, as well as the most appropriate method of engagement we adopt for each of these groups, topics and concerns raised and our response. We regularly review and improve our stakeholder engagement approach to ensure that it remains relevant.
## Stakeholder Group
### Certification bodies (e.g. RSPO, ISPO, ISCC)
- Audits (annually)
- Site visits (annually)
- Training (as required)
- Forums (as required)
- Reporting (annually)

### Non-Governmental Organizations (NGOs)
- One-on-one engagement (as required)
- Multi-stakeholder forums (as required)
- Sustainability reports (annually)
- Website (periodically)

### Banks and financial institutions
- One-on-one engagement (as required)
- Sustainability reports (annually), annual report (annually)

### Media
- One-on-one engagement (as required)
- Multi-stakeholder forums (regularly)
- Website and social media (ongoing)
- Sustainability reports (annually)

### Academia and Students
- Site visits (as required)
- Educational programs - e.g. field trips for high school and university students to learn about oil palm (7 programs; regularly)

### International stakeholders (e.g. European Parliament, EU Ambassadors)
- Site visits (as required)
- One-on-one engagement (as required)

### Topics and Concerns Raised
- Company’s sustainability commitments and performance on issues such as deforestation, peatland development and traceability
- Grievances lodged by stakeholders
- Company’s sustainability commitments and performance on issues such as employee welfare, fires, smallholder partnerships, quality seeds
- Comparison between plasma and other schemes for research and learning purposes
- Company’s sustainability commitments and performance on issues such as traceability

### Asian Agri’s Response
- Ongoing improvements in our understanding of certification requirements
- Helping to create the BPSO calculator
- Ensure clear communication of all sustainability commitments through our policies and reporting
- Investigate and respond to grievances raised
- Shared information on our sustainability policy, commitments, programs and its progress
- Issuing press releases and communication of all sustainability commitments through our policies and reporting
- Comparison between plasma and KKPA schemes for research and learning purposes
- Build capacity and knowledge on agricultural practices in Indonesia

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**ASSURANCE STATEMENT**

**SGS INDONESIA’S REPORT ON SUSTAINABILITY ACTIVITIES IN THE ASIAN AGRI SUSTAINABILITY REPORT 2021**

**NATURE OF THE ASSURANCE/VERIFICATION**
PT. SGS Indonesia was commissioned by Asian Agri to conduct an independent assurance of the Sustainability Report 2021. The scope of the assurance, based on the SGS Sustainability Report Assurance methodology, included the text, and data in accompanying tables, contained in this report.

**INTENDED USERS OF THIS ASSURANCE STATEMENT**
This Assurance Statement is provided with the intention of informing all Asian Agri’s stakeholders.

**RESPONSIBILITIES**
The information in the Report and its presentation are the responsibility of the directors or governing body and the management of Asian Agri. SGS has not been involved in the preparation of any of the material included in the Report.

Our responsibility is to express an opinion on the text, data, graphs, and statements within the scope of verification with the intention to inform Asian Agri’s stakeholders.

**ASSURANCE STANDARDS, TYPE AND LEVEL OF ASSURANCE**
The SGS ESG & Sustainability Assurance protocols used to conduct assurance are based upon internationally recognized assurance guidance and standards including the Principles contained within the Global Reporting Initiative Sustainability Reporting Standards (GRI Standards) 101: Foundation 2016 for report quality, and the guidance on levels of assurance contained within the AA1000 series of standards.

The assurance of this report has been conducted according to the following Assurance Standards:
- SGS ESG & SRA Assurance Protocols (based on GRI Principles and guidance in AA1000)
- AA1000A2v2 Type 2 (AA1000A2 Engine) evaluation with level of assurance is Moderate

Assurance has been conducted at a moderate (limited) level of scrutiny.

**SCOPE OF ASSURANCE AND REPORTING CRITERIA**
The scope of the assurance included evaluation of quality, accuracy and reliability of specified performance information as detailed below and evaluation of adherence to the following reporting criteria:
- Global Reporting Initiative Sustainability Reporting Standards 2016 Core Option

**ASSURANCE METHODOLOGY**
The assurance comprised a combination of pre-assurance research and interviews with relevant accountable managers and employees at the Head Office of Asian Agri in Medan and Representative Office in Jakarta, and sampling to 4 out of 30 own estates and 4 out of 22 mills. All interviews are conducted via online, Asian Agri Sustainability report 2021 covers PT. Indosawit Subur as parent company and 12 subsidiaries. Companies operate in 3 Provinces: North Sumatera Province, Riau Province, and Jambi Province.
LIMITATIONS AND MITIGATION

Financial data drawn directly from independently audited financial accounts has not been checked back to source as part of this assurance process.

Some statements and data within the scope were not assured due to lack of accessible records during the timescale allowed for assurance, and these are clearly marked throughout the Report.

STATEMENT OF INDEPENDENCE AND COMPETENCE

The SGS Group of companies is the world leader in inspection, testing and verification, operating in more than 140 countries and providing services including management systems and service certification; quality, environmental, social and ethical auditing and training; environmental, social and sustainability report assurance. SGS affirm our independence from Asian Agri, being free from bias and conflicts of interest with the organization, its subsidiaries and stakeholders.

The assurance team was assembled based on their knowledge, experience and qualifications for this assignment, and comprised auditors registered with International Register of Certificated Auditors (IRCA), Environmental Management System (EMS) Lead Auditor, Quality Management System (QMS) Lead Auditor, Occupational Health and Safety Assessment Series (OHSAS) Lead Auditor, Round Table on Sustainable Palm Oil (RSPO) Auditor, International Sustainability and Carbon Certification (ISCC) Auditor. Some members of the assurance team have completed the IRCA Corporate Responsibility Training Programme and have experience of auditing in Palm Oil Estate and Crude Palm Oil Plant and are internationally renowned for their expertise in sustainability.

FINDINGS AND CONCLUSIONS

ASSURANCE/VERIFICATION OPINION

On the basis of the methodology described and the verification work performed, we are satisfied that the specified performance information included in the scope of assurance is accurate, reliable, has been fairly stated and has been prepared, in all material respects, in accordance with the reporting criteria.

We believe that the organization has chosen an appropriate level of assurance for this stage in their reporting.

QUALITY AND RELIABILITY OF SPECIFIED PERFORMANCE INFORMATION

- Focus Group Discussion among stakeholders both internal and external could be considered to determine materiality aspects

ADHERENCE TO AA 1000 ACCOUNTABILITY PRINCIPLES STANDARD (2010)

Materiality

Asian Agri has identified stakeholders and issues that are material to each group of stakeholders and the Report addresses these at the appropriate level to reflect their importance and priority to these stakeholders. Asian Agri determine materiality aspects based on crucial issues and concerns of stakeholders that collected by interview and online survey to stakeholders including employees, buyers, smallholders, certification bodies, NGO, consultants, academia, banking, governments. Materiality which to be high priority issues are fire prevention and management, biodiversity and conservation, sustainable supply chains, human rights and worker’s welfare, smallholders’ empowerment, and occupational health and safety.

Stakeholder Inclusiveness

Asian Agri has made a commitment to be accountable to those on whom it has an impact or who have an impact on it as stated in policies such as Environmental Policies, High Carbon Stock Conservation, Green House Gases Monitoring and Mitigation, and Zero Burning Policy, Code of Conduct Policy. Individually is the participation of stakeholders in developing and achieving an accountable and strategic response to sustainability.

Responsiveness

Asian Agri has responded to stakeholder’s issues that may affect its sustainability performance and are addressed through decisions, actions, and performance, as well as communication with stakeholders. Nevertheless, the organization could benefit from providing a more detailed report of the response during the engagement process. For example: Engagement with NGOs, Engagement with Local Community.

Impact

Asian Agri has identified and fairly represented the impacts that were monitored and measured. Asian Agri has established processes to monitor, measure, and evaluate impacts that lead to effective decision-making within organization.

ADHERENCE TO GLOBAL REPORTING INITIATIVE SUSTAINABILITY REPORTING STANDARDS (2016)

In our opinion, the Asian Agri Sustainability Report 2021 is presented in accordance with the Core Option for Global Reporting Initiative Sustainability Reporting Standards 2016 and fulfills all the required content and quality criteria.

GRI 101: Foundation

In our opinion, the content and quality of the report adheres to the four GRI Report Content Principles of Materiality, Stakeholder Inclusiveness, Sustainability Context and Completeness, and the six GRI Report Quality Principles of Balance, Comparability, Accuracy, Timeliness, Clarity and Reliability.

GRI 102: General Disclosures

All the General disclosures required for reporting in accordance with the Core Option for Global Reporting Initiative Sustainability Reporting Standards 2016.

GRI 103: Management Approach and Topic Specific Standard

Disclosure Management Approach (DMA) for each materiality aspects have been disclosed in the report in accordance with the Core option for Global Reporting Initiative Sustainability Reporting Standards 2016.

Signed:
For and on behalf of SGS Indonesia

Johnny Koesoemadiyana
Business Manager
Jakarta, Indonesia
21 April 2022
WWW.SGS.COM
# GRI Content Index

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## Abbreviations

### A
- **AA2030**: Asian Agri’s goals for 2030
- **AMDAL**: Analisis Dampak Lingkungan
- **AALI**: Asian Agri Learning Institute

### B
- **BOD**: Biochemical Oxygen Demand

### C
- **CDP**: Carbon Disclosure Project
- **COD**: Chemical Oxygen Demand
- **CPO**: Crude Palm Oil
- **CSR**: Corporate Social Responsibility
- **CPKO**: Crude Palm Kernel Oil
- **CSV**: Corporate Shared Value

### D
- **DLW**: Decent Living Wage

### E
- **EFB**: Empty Fruit Bunch
- **ESG**: Environmental, Social and Governance
- **EU**: European Union

### F
- **FAC**: Fire Awareness Community
- **FFA**: Fire Free Alliance
- **FFB**: Fresh Fruit Bunch
- **FFVP**: Fire-Free Village Programme
- **FPIC**: Free, Prior and Informed Consent

### G
- **GHG**: Green House Gas
- **GRI**: Global Reporting Initiative

### H
- **HCS**: High Carbon Stock
- **HCV**: High Conservation Value
- **HCSA**: High Carbon Stock Approach
- **HSE**: Health, Safety and Environment

### I
- **IDR**: Indonesian Rupiah
- **IDM**: Integrated Disease Management
- **ILO**: International Labour Organisation
- **IPM**: Integrated Pest Management
- **ISCC**: International Sustainability and Carbon Certification
- **ISO**: International Organization for Standardization
- **ISPO**: Indonesia Sustainable Palm Oil
- **IUCN**: International Union for Conservation of Nature

### Smallholder Empowerment

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Glossary

**AMDAL / Environmental Impact Assessment (EIA):** The assessment by which the anticipated impacts on the environment of a proposed development or project are measured. If the likely impacts are unacceptable, design measures or other relevant mitigation measures can be taken to reduce or avoid these effects.

**ASEAN RAI:** The ASEAN Guidelines on Promoting Responsible Investment in Food, Agriculture and Forestry (ASEAN RAI) is a regionally-adopted, voluntary framework to guide investment decision making for both private and public sector actors. Formally adopted by the ASEAN Ministers of Agriculture and Forestry in 2018, ASEAN RAI includes 10 social, environmental, and governance (ESG) principles about how to avoid risks and have positive impact specifically in the food, agriculture and forestry sectors.

**B30:** A type of biodiesel with a fuel blend containing bio content of 30%. This was rolled out by the Indonesian government in Jan 2020 to reduce reliance on fossil fuels.

**Biofuel:** A fuel that is produced from biomass – i.e. plant material or animal waste

**Biogas:** Gas produced by the anaerobic digestion or fermentation of organic matter, such as manure, sewage sludge, municipal solid waste, biodegradable waste or any other biodegradable feedstock. Biogas produces methane and carbon dioxide and can be used as fuel.

**Biological Oxygen Demand (BOD):** A measure of the dissolved oxygen needed by microorganisms during the oxidation of reduced substance in waters and wastes.

**Chemical Oxygen Demand (COD):** The amount of oxygen needed to oxidize the organic matter present in water.

**Collective Bargaining:** The ongoing process of negotiation between representatives of workers and employers to establish the conditions of employment.

**Deforestation:** Conversion of forest to another land use or long-term reduction of the tree canopy cover. This includes conversion of natural forest to tree plantations, agriculture, pasture water reservoirs and urban areas but excludes timber production areas managed to ensure the forest regenerates after logging.

**Effluent:** Liquid waste from industrial activity

**Fire-Free Village Programme:** A fire management pilot program which provides training, equipment and economic incentives to local communities to help prevent fire. Members of the Fire Free Alliance (FFA), including APRIL, Asian Agri, IOI Group, Musim Mas, Sime Darby, Wilmar International Limited, are currently implementing their own FFVPs as part of their membership commitments.

**Free, prior and informed consent (FPIC):** Free, Prior and Informed Consent (FPIC) is a specific right that pertains to indigenous peoples and is recognised in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). It allows them to give or withhold consent to a project that may affect them or their territories. Once they have given their consent, they can withdraw it at any stage. Furthermore, FPIC enables them to negotiate the conditions under which the project will be designed, implemented, monitored and evaluated.

**Freedom of Association:** The right of a person to join with other people, for example, as a union, to defend their labour rights.

**Fresh Fruit Bunches (FFB):** The fruit from the oil palm which is then processed into crude palm oil and palm kernel. This is the raw material for palm oil mills.

**Forced Labour:** Work that is performed involuntarily and under the menace of any penalty. It refers to situations in which persons are coerced to work through the use of violence or intimidation, or by more subtle means such as manipulated debt, retention of identity papers or threats of denunciation to immigration authorities.

**Greenhouse Gas (GHG) Emissions:** Gas in the atmosphere that absorbs and emits radiation within the thermal infra-red range. This process is the fundamental cause of the greenhouse effect. The primary GHG emitted from palm oil mill are carbon dioxide, methane and nitrous oxide.
High Carbon Stock (HCS): HCS forests are those identified through the HCS Approach as forested areas to be prioritized for protection from conversion. HCS are divided into six classifications which are Open land (OL), Scrub (S), Young Generating Forest (YRF), Low Density Forest (LDF), Medium Density Forest (MDF), and High Density Forest (HDF).

High Carbon Stock Approach (HCSA): A methodology that distinguishes forest areas for protection from degraded lands with low carbon and biodiversity values that may be developed. The methodology was developed with the aim to ensure a practical, transparent, robust, and scientifically credible approach that is widely accepted to implement commitments to halt deforestation in the tropics, while ensuring the rights and livelihoods of local peoples are respected.

High Conservation Values (HCV): Biological, ecological, social or cultural values which are considered outstandingly significant or critically important, at the national, regional or global level (source: HCV Resource Network).

Hotspot: An indicator of a potential fire at a particular site on the ground.

Indonesia Sustainable Palm Oil (ISPO): A policy adopted from Circular Letter No.092/TU.200/E-ISPO/9/2012 by the Ministry of Agriculture on behalf of the Government of Indonesia with the aim to improve the competitiveness of the Indonesian palm oil on the global market and contribute to the objective set by the President of the Republic of Indonesia to reduce greenhouse gases emissions and draw attention to environmental issues.

Indigenous Communities: Indigenous communities are distinct social and cultural groups that share collective ancestral ties to the lands and natural resources where they live, occupy or from which they have been displaced. The land and natural resources on which they depend are inextricably linked to their identities, cultures, livelihoods, as well as their physical and spiritual well-being.

Integrated Disease Management (IDM): The practice of using a range of measures to prevent and manage diseases in crops. Hazard analysis is used to identify the potential for infection so that preventative or curative measures can be put in place to minimise the risk of disease infection and spread.

Integrated Pest Management (IPM): An ecosystem-based strategy that focuses on long-term prevention of pest damage through a combination of techniques such as biological control, habitat manipulation, modification of cultural practices, and use of resistant varieties.

International Sustainability and Carbon Certification (ISCC): The first international certification system that can be used to prove sustainability and greenhouse gas savings for all kinds of biomass and bio-energy based on EU Renewable Energy Directive’s (RED) requirements. The ISCC seal proves that biomass was produced in an environmentally friendly way. ISCC also covers social sustainability principles and thus provides more security for companies.

Kernel Crushing Plant (KCP): A plant that processes palm kernel into Crude Palm Kernel Oil (CPKO).

Koperasi Unit Desa (KUD): Village cooperatives

Net Zero: A target of completely negating the amount of greenhouse gases produced, by reducing emissions and implementing methods of absorbing carbon dioxide from the atmosphere.

No Deforestation, No Peat and No Exploitation (NDPE): An important policy for the palm oil industry on sustainable palm oil adopted by companies. NDPE policies include commitments to the following: Free, Prior and Informed Consent (FPIC) for indigenous and other local communities, zero burning, preventing poor working conditions, and preserving High Conservation Value (HCV) areas, High Carbon Stock (HCS) areas and peatlands.

Non Governmental Organisation (NGO): An organization that is neither a part of a government nor a conventional for-profit business.

Palm Oil Mill Effluent (POME): One of the by-products of the Fresh Fruit Bunch process.

Palm Kernel: The edible seed of the palm oil fruit, which yields two types of oil: palm oil and palm kernel oil.

Palm Kernel Shell: The byproduct of palm kernel oil production, which can be used as biofuel.

Palm Oil: An edible vegetable oil produced from the fruit of oil palm trees. It is a versatile oil that can be used for a wide variety of products, from cooking oil to food products and cosmetics.

Peatland: Terrestrial wetland ecosystems in which waterlogged conditions prevent plant material from fully decomposing. Peatlands store more carbon than all other vegetation types combined. They are known to cover at least 3% of global land surface and are important for preventing and mitigating the effects of climate change.

Plasma Transmigration Programme (Perkebunan Inti Rakyat): A programme initiated by the Indonesian government to encourage the development of smallholder plantations with the assistance and cooperation of plantation companies (the nucleus) which aims to support and strengthen the surrounding community plantations (the plasma).

Provincial Spatial Planning: A general spatial plan for the province which is an elaboration of the National Spatial Planning (RTRWN); it contains: objectives, policies, strategies for spatial planning for the province; provincial spatial structure plan; provincial spatial pattern plan; determination of provincial strategic areas; directions for the use of provincial space; and directions for controlling the use of provincial space. The preparation of the RTRWP must refer to the RTRWN, guidelines for spatial planning, and regional long-term development plans.

RSPO PalmGHG Calculator: Developed by the Greenhouse Gas Working Group 2 (GHG-WG2) of the RSPO, to allow palm oil growers to estimate and monitor their net greenhouse gas emissions.

Smallholders: Farmers who grow oil palm, alongside subsistence crops, where the family provides the majority of labour and the farm provides the principal source of income, and the planted palm oil area is less than 50 hectares. More than 3 million smallholders and small-scale farmers make a living from palm oil globally. There are 2 types of smallholders mentioned in this report: Independent and Plasma Scheme Smallholders.

Social and Environmental Assessments (SEIA): A process for predicting and assessing the potential environmental and social impacts of a proposed project, evaluating alternatives and designing appropriate mitigation, management and monitoring measures.

Transboundary Haze: Consists of smoke, dust, moisture, and vapour suspended in air to impair visibility. Haze pollution can be said to be “transboundary” if its density and extent is so great at source that it remains at measurable levels after crossing into another country’s air space. Haze pollution can originate from large-scale forest and land fires characterised by a high concentration of particulate matter.

Roundtable on Sustainable Palm Oil (RSPO): An organization that unites stakeholders from 7 sectors of the palm oil industry: oil palm producers, processor or traders, consumer goods manufacturers, retailers, banks/ investors, and environmental and social non-governmental organization (NGOs) to develop and implement global standards for sustainable palm oil. RSPO is a global, multi-stakeholder initiatives on sustainable palm oil.

Sustainability: A balancing act where business decisions take into account the impact they may have on the triple bottom line aspect of sustainability which are social, environment, and economic

Stakeholder: Refers to any group, individual, member or system that affects or can be affected by company’s actions

Traceability: A process for tracing palm oil throughout the supply chain from source of FFB origin.

‘Zero-burn’ policy: A policy towards land clearing where either logged over secondary forests or an old area of plantation tree crops such as oil palm are cut, chipped, stacked and left on site to decompose naturally.