**Golden Agri-Resources - Forests 2018**

F0. Introduction

**F0.1**

**(F0.1) Give a general description of and introduction to your organization.**

GAR is one of the leading palm oil plantation companies located in Indonesia with Integrated operations focused on the production of palm-based edible oils, fats, and fuels. GAR is focused on sustainable palm oil production and its primary activities range from cultivating and harvesting oil palm trees, processing fresh fruit bunches (FFB) into crude palm oil (CPO) and palm kernel (PK), to refining CPO into industrial and consumer products such as cooking oil, margarine, shortening, and specialty fats, as well as merchandising palm products throughout the world.

GAR aims to be the leader in sustainable palm oil production by adopting the best industry practices and standards, managing the environment responsibly and empowering the communities where we operate while delivering shareholder value. Our sustainability strategy is based on implementing best practices holistically in all dimensions of sustainability (the environment, community, work environment, supply chain and marketplace); benchmarking our practices against the Roundtable on Sustainable Palm Oil (RSPO) Principles and Criteria and the core principles of the United Nations Global Compact (UNGC); and engaging stakeholders.

**F0.2**

**(F0.2) State the start and end date of the year for which you are reporting data.**

<table>
<thead>
<tr>
<th></th>
<th>Start Date</th>
<th>End Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reporting year</td>
<td>January 1 2017</td>
<td>December 31 2017</td>
</tr>
</tbody>
</table>

**F0.3**

**(F0.3) Select the currency used for all financial information disclosed throughout your response.**

USD

**F0.4**

**(F0.4) Select the stage(s) of the value chain which best represents your organization’s area of operation pertaining to forest risk commodities.**

- Production
- Processing
- Trading
- Manufacturing
- Retailing

**F0.5**
(F0.5) Do you produce, use, or sell materials or products that contain any of the forest risk commodities?

<table>
<thead>
<tr>
<th>Forest risk commodity</th>
<th>Produce/use/sell</th>
<th>Disclosing</th>
<th>Explanation if produce/use/sell but not disclosing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
<td>No</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Palm Oil</td>
<td>Yes</td>
<td>Yes</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Cattle Products</td>
<td>No</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Soy</td>
<td>No</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Other - Rubber</td>
<td>No</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Other</td>
<td>No</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

(F0.6) Are there any parts of your direct operations not included in your disclosure?
No

(F0.7) Are there any parts of your supply chain not included in your disclosure?
No

F1. Current state

F1.1

(F1.1) How does your organization produce, use, or sell your disclosed commodity(ies)?

**Forest risk commodity**
Palm Oil

**Activity**
Growing/production of raw materials

**Form of commodity**
Palm oil fruit

**Source**
Owned/managed land
Smallholders

**Country/Region of origin**
Indonesia

**% of procurement spend**
6-10%

**Comment**
We are a major grower and producer of palm oil Fresh Fruit Bunches (FFB). The FFB is mostly produced on our nucleus estates with another 22% FFB coming from plasma smallholder estates. Procurement spend on FFB was around 9% in 2017.

**Forest risk commodity**
Palm Oil

**Activity**
Harvesting
Form of commodity
Palm oil fruit

Source
Owned/managed land
Smallholders

Country/Region of origin
Indonesia

% of procurement spend
6-10%

Comment
We are a major grower and producer of palm oil Fresh Fruit Bunches (FFB). The FFB is mostly produced on our nucleus estates with another 22% FFB coming from plasma smallholder estates. Procurement spend on FFB was around 9% in 2017.

Forest risk commodity
Palm Oil

Activity
Milling

Form of commodity
Palm oil fruit

Source
Owned/managed land
Smallholders
Trader/broker/commodity market

Country/Region of origin
Indonesia

% of procurement spend
6-10%

Comment
The feedstock for our mills comes from our own nucleus and plasma smallholder estates. In addition we procure another 10% of FFB from independent smallholders, brokers and other estates. Procurement spend on FFB was around 9% in 2017.

Forest risk commodity
Palm Oil

Activity
Refining & processing

Form of commodity
Crude palm oil (CPO)
Crude palm kernel oil (CPKO)

Source
Owned/managed land
Smallholders
Multiple contracted producers
Trader/broker/commodity market
Contracted suppliers (processors)

Country/Region of origin
Indonesia

% of procurement spend
71-80%

Comment
The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2017, these raw materials were sourced from 427 third-party mills and 44 GAR-owned mills in Indonesia. The feedstock for the mills or fresh fruit bunches (FFB) are in turn supplied by our own nucleus estates, third-party estates, thousands of individual
farmers (plasma and independent), as well as brokers and agents who buy from farmers. Procurement of CPO and PK, and procurement of FFB, accounts for around 78 and nine percent respectively of our Indonesian subsidiaries’ procurement of products and services.

<table>
<thead>
<tr>
<th>Forest risk commodity</th>
<th>Palm Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activity</td>
<td>Growing/production of raw materials</td>
</tr>
<tr>
<td>Country/Region of origin</td>
<td>Indonesia</td>
</tr>
<tr>
<td>State/Region</td>
<td>Specify state/region (North Sumatra and Riau)</td>
</tr>
<tr>
<td>Municipality</td>
<td>Specify municipality (1) (Labuan Batu)</td>
</tr>
<tr>
<td></td>
<td>Specify municipality (2) (Padang Lawas Utara)</td>
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<tr>
<td></td>
<td>Specify municipality (3) (Labuhan Batu Selatan)</td>
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<td></td>
<td>Specify municipality (4) (Kandis)</td>
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<td></td>
<td>Specify municipality (5) (Tapung Ilir)</td>
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<td>Specify municipality (6) (Indragiri Hulu)</td>
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<td>Specify municipality (7) (Indragiri Hilir)</td>
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<td></td>
<td>Specify municipality (8) (Kampar)</td>
</tr>
<tr>
<td></td>
<td>Specify municipality (9) (Siak)</td>
</tr>
</tbody>
</table>

Please explain
We have 172 palm oil plantations across Indonesia and 500,000 hectares of planted area in Indonesia. We produce the majority of palm oil fruit (FFB) on our own nucleus estates with another 22% from our plasma (smallholder) estates. We are able to track these materials closely through internal procedures and controls. While we do not own the plasma estates, they are closely integrated into our management system and we are therefore able to monitor and track production closely.

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<tr>
<td>Country/Region of origin</td>
<td>Indonesia</td>
</tr>
<tr>
<td>State/Region</td>
<td>Specify state/region (Jambi and South Sumatra)</td>
</tr>
<tr>
<td>Municipality</td>
<td>Specify municipality (1) (Sarolangon)</td>
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<td></td>
<td>Specify municipality (2) (Tebo)</td>
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<td></td>
<td>Specify municipality (3) (Merangin)</td>
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Please explain
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Forest risk commodity
Palm Oil

Activity
Growing/production of raw materials

Country/Region of origin
Indonesia

State/Region
Specify state/region (Lampung and Bangka Belitung)

Municipality
Specify municipality (1) (Tulang Bawang)
Specify municipality (2) (Bangka Barat)
Specify municipality (3) (Belitung)

Please explain
We have 172 palm oil plantations across Indonesia and 500,000 hectares of planted area in Indonesia. We produce the majority of palm oil fruit (FFB) on our own nucleus estates with another 22% from our plasma (smallholder) estates. We are able to track these materials closely through internal procedures and controls. While we do not own the plasma estates, they are closely integrated into our management system and we are therefore able to monitor and track production closely.

Forest risk commodity
Palm Oil

Activity
Growing/production of raw materials

Country/Region of origin
Indonesia

State/Region
Specify state/region (West Kalimantan and Central Kalimantan)

Municipality
Specify municipality (1) (Ketapang)
Specify municipality (2) (Kapuas Hulu)
Specify municipality (3) (Seruyan)
Specify municipality (4) (Gunung Mas)
Specify municipality (5) (Kotawaringin Timur)
Specify municipality (6) (Kotawaringin Barat)
Specify municipality (7) (Danau Seluluk)

Please explain
We have 172 palm oil plantations across Indonesia and 500,000 hectares of planted area in Indonesia. We produce the majority of palm oil fruit (FFB) on our own nucleus estates with another 22% from our plasma (smallholder) estates. We are able to track these materials closely through internal procedures and controls. While we do not own the plasma estates, they are closely integrated into our management system and we are therefore able to monitor and track production closely.

Forest risk commodity
Palm Oil

Activity
Growing/production of raw materials

Country/Region of origin
Indonesia

State/Region
Specify state/region (Papua)

Municipality
Specify municipality (1) (Jayapura)
Specify municipality (2) (Papua Barat)

Please explain
We have 172 palm oil plantations across Indonesia and 500,000 hectares of planted area in Indonesia. We produce the majority of palm oil fruit (FFB) on our own nucleus estates with another 22% from our plasma (smallholder) estates. We are able to track these materials closely through internal procedures and controls. While we do not own the plasma estates, they are closely integrated into our management system and we are therefore able to monitor and track production closely.

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<td>Harvesting</td>
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Harvesting

**Country/Region of origin**
Indonesia

**State/Region**
Specify state/region (Lampung and Bangka Belitung)

**Municipality**
Specify municipality (1) (Tulang Bawang)
Specify municipality (2) (Bangka Barat)
Specify municipality (3) (Belitung)

**Please explain**
We have 172 palm oil plantations across Indonesia and 500,000 hectares of planted area in Indonesia. We produce the majority of palm oil fruit (FFB) on our own nucleus estates with another 22% from our plasma (smallholder) estates. We are able to track these materials closely through internal procedures and controls. While we do not own the plasma estates, they are closely integrated into our management system and we are therefore able to monitor and track production closely.

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Forest risk commodity
Palm Oil

**Activity**
Harvesting

**Country/Region of origin**
Indonesia

**State/Region**
Specify state/region (West Kalimantan and Central Kalimantan)

**Municipality**
Specify municipality (1) (Ketapang)
Specify municipality (2) (Kapuas Hulu)
Specify municipality (3) (Seruyan)
Specify municipality (4) (Gunung Mas)
Specify municipality (5) (Kotawaringin Timur)
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**Please explain**
We have 172 palm oil plantations across Indonesia and 500,000 hectares of planted area in Indonesia. We produce the majority of palm oil fruit (FFB) on our own nucleus estates with another 22% from our plasma (smallholder) estates. We are able to track these materials closely through internal procedures and controls. While we do not own the plasma estates, they are closely integrated into our management system and we are therefore able to monitor and track production closely.

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Forest risk commodity
Palm Oil

**Activity**
Harvesting

**Country/Region of origin**
Indonesia

**State/Region**
Specify state/region (South Kalimantan and East Kalimantan)

**Municipality**
Specify municipality (1) (Kotabaru)
Specify municipality (2) (Tanah Laut)
Specify municipality (3) (Kutai Timur)

**Please explain**
We have 172 palm oil plantations across Indonesia and 500,000 hectares of planted area in Indonesia. We produce the majority of palm oil fruit (FFB) on our own nucleus estates with another 22% from our plasma (smallholder) estates. We are able to track these materials closely through internal procedures and controls. While we do not own the plasma estates, they are closely integrated into our management system and we are therefore able to monitor and track production closely.
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<td><strong>Activity</strong></td>
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<td><strong>Country/Region of origin</strong></td>
<td>Indonesia</td>
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<tr>
<td><strong>State/Region</strong></td>
<td>Specify state/region (Papua)</td>
</tr>
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<td><strong>Municipality</strong></td>
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<th>Forest risk commodity</th>
<th>Palm Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activity</strong></td>
<td>Milling</td>
</tr>
<tr>
<td><strong>Country/Region of origin</strong></td>
<td>Indonesia</td>
</tr>
<tr>
<td><strong>State/Region</strong></td>
<td>Specify state/region (North Sumatra and Riau)</td>
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<tr>
<td><strong>Municipality</strong></td>
<td>Specify municipality (1) (Padang Lawas Utara)</td>
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<td>Specify municipality (5) (Sarolangon)</td>
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</tbody>
</table>
Specify municipality (6) (Merangin)
Specify municipality (7) (Tebo)

Please explain
The feedstock for the mills or FFB are supplied by our own nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. We have achieved and maintain 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. This means we fully know and are tracking all supplies of FFB to our own mills. (In 2017, aside from our own nucleus and plasma smallholders (69,100) we sourced from some 70 brokers and over 11,000 independent smallholders.) Full TTM and TTP is maintained through improved procurement processes and documentation. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (https://goldenagri.com.sg/sustainability-dashboard/)

Forest risk commodity
Palm Oil

Activity
Milling

Country/Region of origin
Indonesia

State/Region
Specify state/region (Lampung and Bangka Belitung)

Municipality
Specify municipality (1) (Mesuji)
Specify municipality (2) (Tulang Bawang)
Specify municipality (3) (Bangka Barat)
Specify municipality (4) (Belitung)

Please explain
The feedstock for the mills or FFB are supplied by our own nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. We have achieved and maintain 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. This means we fully know and are tracking all supplies of FFB to our own mills. (In 2017, aside from our own nucleus and plasma smallholders (69,100) we sourced from some 70 brokers and over 11,000 independent smallholders.) Full TTM and TTP is maintained through improved procurement processes and documentation. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (https://goldenagri.com.sg/sustainability-dashboard/)

Forest risk commodity
Palm Oil

Activity
Milling

Country/Region of origin
Indonesia

State/Region
Specify state/region (West Kalimatan dan Central Kalimantan)

Municipality
Specify municipality (1) (Ketapang)
Specify municipality (2) (Kapuas Hulu)
Specify municipality (3) (Seruyan)
Specify municipality (4) (Kotawaringin Timur)
Specify municipality (5) (Gunung Mas)

Please explain
The feedstock for the mills or FFB are supplied by our own nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. We have achieved and maintain 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. This means we fully know and are tracking all supplies of FFB to our own mills. (In 2017, aside from our own nucleus and plasma smallholders (69,100) we sourced from some 70 brokers and over 11,000 independent smallholders.) Full TTM and TTP is maintained through improved procurement processes and documentation. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (https://goldenagri.com.sg/sustainability-dashboard/)
Forest risk commodity
Palm Oil

Activity
Milling

Country/Region of origin
Indonesia

State/Region
Specify state/region (South Kalimantan and East Kalimantan)

Municipality
Specify municipality (1) (Tanah Laut)
Specify municipality (2) (Kotabaru)
Specify municipality (3) (Kutai Timur)

Please explain
The feedstock for the mills or FFB are supplied by our own nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. We have achieved and maintain 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. This means we fully know and are tracking all supplies of FFB to our own mills. (In 2017, aside from our own nucleus and plasma smallholders (69,100) we sourced from some 70 brokers and over 11,000 independent smallholders.) Full TTM and TTP is maintained through improved procurement processes and documentation. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (https://goldenagri.com.sg/sustainability-dashboard/)

Forest risk commodity
Palm Oil

Activity
Milling

Country/Region of origin
Indonesia

State/Region
Specify state/region (Papua)

Municipality
Specify municipality (1) (Jayapura)

Please explain
The feedstock for the mills or FFB are supplied by our own nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. We have achieved and maintain 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. This means we fully know and are tracking all supplies of FFB to our own mills. (In 2017, aside from our own nucleus and plasma smallholders (69,100) we sourced from some 70 brokers and over 11,000 independent smallholders.) Full TTM and TTP is maintained through improved procurement processes and documentation. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (https://goldenagri.com.sg/sustainability-dashboard/)

Forest risk commodity
Palm Oil

Activity
Refining & processing

Country/Region of origin
Indonesia

State/Region
Specify state/region (Sumatra Island)

Municipality
Specify municipality (1) (Lubuk Gaung)
Specify municipality (2) (Lampung)
Specify municipality (3) (Belawan)

Please explain
Since 2015, we have maintained 100% Traceability to the Mill. In 2017 this involved all GAR-owned mills (which have also achieved 100% Traceability to the Plantation) and 427 third-party supplier mills which supply our 8 downstream locations. This is done through improved and enhanced procurement processes and documentation. We update our Traceability information on the GAR Sustainability Dashboard quarterly. (https://goldenagri.com.sg/sustainability-dashboard/) We are now working with our third-party supplier mills so that they can report 100% Traceability to the Plantation by 2020.

**Forest risk commodity**
Palm Oil

**Activity**
Refining & processing

**Country/Region of origin**
Indonesia

**State/Region**
Specify state/region (Java Island)

**Municipality**
Specify municipality (1) (Marunda)
Specify municipality (2) (Surabaya)

**Please explain**
Since 2015, we have maintained 100% Traceability to the Mill. In 2017 this involved all GAR-owned mills (which have also achieved 100% Traceability to the Plantation) and 427 third-party supplier mills which supply our 8 downstream locations. This is done through improved and enhanced procurement processes and documentation. We update our Traceability information on the GAR Sustainability Dashboard quarterly. (https://goldenagri.com.sg/sustainability-dashboard/) We are now working with our third-party supplier mills so that they can report 100% Traceability to the Plantation by 2020.

**Forest risk commodity**
Palm Oil

**Activity**
Refining & fractionation

**Country/Region of origin**
Indonesia

**State/Region**
Specify state/region (Java Island)

**Municipality**
Specify municipality (1) (Marunda)
Specify municipality (2) (Surabaya)

**Please explain**
Since 2015, we have maintained 100% Traceability to the Mill. In 2017 this involved all GAR-owned mills (which have also achieved 100% Traceability to the Plantation) and 427 third-party supplier mills which supply our 8 downstream locations. This is done through improved and enhanced procurement processes and documentation. We update our Traceability information on the GAR Sustainability Dashboard quarterly. (https://goldenagri.com.sg/sustainability-dashboard/) We are now working with our third-party supplier mills so that they can report 100% Traceability to the Plantation by 2020.

**Forest risk commodity**
Palm Oil

**Activity**
Refining & processing

**Country/Region of origin**
Indonesia

**State/Region**
Specify state/region (Kalimantan Island)

**Municipality**
Specify municipality (1) (Tarjun)

**Please explain**
Since 2015, we have maintained 100% Traceability to the Mill. In 2017 this involved all GAR-owned mills (which have also achieved 100% Traceability to the Plantation) and 427 third-party supplier mills which supply our 8 downstream locations. This is done through improved and enhanced procurement processes and documentation. We update our Traceability information on the GAR Sustainability Dashboard quarterly. (https://goldenagri.com.sg/sustainability-dashboard/) We are now working with our third-party supplier mills so that they can report 100% Traceability to the Plantation by 2020.
Please explain
The GSEP applies to all our suppliers. We are taking measures to help our supply chain become more sustainable and we are working on: - Traceable and transparent supply chains, - Supporting and training suppliers in adopting responsible practices including strengthening their environmental management and other practices. Our Traceability to the Mill process enabled us to map all the mills supplying our eight downstream locations, 427 mills (3rd party supplier mills) in 2017, 44 mills owned by GAR (excluding two mills which have just been acquired or in operation at the end of 2017). Working with these mills we are now mapping the supply chain all the way back to origin. in 2017, all GAR-owned mills have achieved target of 100% Traceability to Plantation (TTP) and all GAR palm supply chain have achieved 39% fully traceable. Future targets are to maintain full TTP at our own mills, continue sharing responsible palm oil practices with supply chain, and 100% TTP for 3rd-party mills by 2020.

F1.2

(F1.2) Indicate the percentage of your organization’s revenue that was dependent on your disclosed forest risk commodity(ies) in the reporting year.

<table>
<thead>
<tr>
<th>Forest risk commodity</th>
<th>% of revenue dependent on commodity</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Palm Oil</td>
<td>91-99%</td>
<td>We are vertically integrated company in production of palm oil and its derivatives. The majority of our revenue was dependent on palm oil.</td>
</tr>
<tr>
<td>Cattle products</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Soy</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Other - Rubber</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
</tbody>
</table>

F1.3

(F1.3) Do you own or manage land used for the production of your disclosed commodity(ies)?

Forest risk commodity
Palm Oil

Own and/or manage land?
Owned and managed land

Type of control
Other type of control, please specify (Financial and Operational)

Description of type of control
GAR is one of the leading palm oil plantation companies with a total planted area of 500,481 hectares (including plasma smallholders) as at 30 June 2018, located in Indonesia. As at end 2017, the composition of estates owned by GAR (called ‘nucleus’) and estates owned by smallholders (called ‘plasma’) was 80 percent and 20 percent, respectively. Founded in 1996, GAR was listed on the Singapore Exchange in 1999 and has a market capitalisation of US$2.8 billion as at 30 June 2018. GAR has several subsidiaries, including PT SMART Tbk. which is listed on the stock exchange in Indonesia.

Country/Region
Indonesia

Land type
Conservation set aside

Size (Hectares)
72000

Do you have a system in place to monitor forests-related risks?
Yes

Type of monitoring system
**Geographic Information System (GIS)**

**Ground-based monitoring system**

**Aerial monitoring system**

**Description of monitoring system**

Monitoring Activities are conducted by GAR and divided into two parts: Indirect Monitoring (Remote Sensing) a. In collaboration with MacDonald Detweiller & Associates (MDA) Canada for deforestation monitoring at 18 PTs that are implementing RSPO New Planting Procedure (NPP) Policy b. Internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and Aerial Photo shoot from unmanned aircraft or drone. (This is the part of Aerial Monitoring System) c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other references from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry d. GIS (Geographic Information System) monitoring; our company executes and analyzes participatory mapping from satellite photos Direct Monitoring a. Verification activities at sites every 6 months. This monitoring covers all of our operational areas. (This is the part of ground based monitoring system)

**Recent infraction(s)**

No

**Explanation of infraction**

<Not Applicable>

---

**Forest risk commodity**

Palm Oil

**Own and/or manage land?**

Owned and managed land

**Type of control**

Other type of control, please specify (Financial and Operational)

**Description of type of control**

GAR is one of the leading palm oil plantation companies with a total planted area of 500,481 hectares (including plasma smallholders) as at 30 June 2018, located in Indonesia. As at end 2017, the composition of estates owned by GAR (called ‘nucleus’) and estates owned by smallholders (called ‘plasma’) was 80 percent and 20 percent, respectively. Founded in 1996, GAR was listed on the Singapore Exchange in 1999 and has a market capitalisation of US$2.8 billion as at 30 June 2018. GAR has several subsidiaries, including PT SMART Tbk. which is listed on the stock exchange in Indonesia.

**Country/Region**

Indonesia

**Land type**

Planted

**Size (Hectares)**

399995

**Do you have a system in place to monitor forests-related risks?**

Yes

**Type of monitoring system**

Geographic Information System (GIS)

Ground-based monitoring system

Aerial monitoring system

**Description of monitoring system**

Monitoring Activities are conducted by GAR and divided into two parts: Indirect Monitoring (Remote Sensing) a. In collaboration with MacDonald Detweiller & Associates (MDA) Canada for deforestation monitoring at 18 PTs that are implementing RSPO New Planting Procedure (NPP) Policy b. Internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and Aerial Photo shoot from unmanned aircraft or drone. (This is the part of Aerial Monitoring System) c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other references from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry d. GIS (Geographic Information System) monitoring; our company executes and analyzes participatory mapping from satellite photos Direct Monitoring a. Verification activities at sites every 6 months. This monitoring covers all of our operational areas. (This is the part of ground based monitoring system)

**Recent infraction(s)**

No

**Explanation of infraction**

<Not Applicable>
**Forest risk commodity**
Palm Oil

**Own and/or manage land?**
Managed land

**Type of control**
Operational

**Description of type of control**
GAR is one of the leading palm oil plantation companies with a total planted area of 500,481 hectares (including plasma smallholders) as at 30 June 2018, located in Indonesia. As at end 2017, the composition of estates owned by GAR (called ‘nucleus’) and estates owned by smallholders (called ‘plasma’) was 80 percent and 20 percent, respectively. Founded in 1996, GAR was listed on the Singapore Exchange in 1999 and has a market capitalisation of US$2.8 billion as at 30 June 2018. GAR has several subsidiaries, including PT SMART Tbk. which is listed on the stock exchange in Indonesia.

**Country/Region**
Indonesia

<table>
<thead>
<tr>
<th>Land type</th>
<th>Scheme/Plasma smallholders</th>
</tr>
</thead>
</table>

| Size (Hectares) | 102852 |

**Do you have a system in place to monitor forests-related risks?**
Yes

**Type of monitoring system**
- Geographic Information System (GIS)
- Ground-based monitoring system
- Aerial monitoring system

**Description of monitoring system**
Monitoring Activities are conducted by GAR and divided into two parts: Indirect Monitoring (Remote Sensing) a. In collaboration with MacDonald Detweiller & Associates (MDA) Canada for deforestation monitoring at 18 PTs that are implementing RSPO New Planting Procedure (NPP) Policy b. Internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and Aerial Photo shoot from unmanned aircraft or drone. (This is the part of Aerial Monitoring System) c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other references from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry d. GIS (Geographic Information System) monitoring; our company executes and analyzes participatory mapping from satellite photos Direct Monitoring a. Verification activities at sites every 6 months. This monitoring covers all of our operational areas. (This is the part of ground based monitoring system)

**Recent infraction(s)**
No

**Explanation of infraction**
<Not Applicable>
Land type
Land certified

Size (Hectares)
259000

Do you have a system in place to monitor forests-related risks?
Yes

Type of monitoring system
Geographic Information System (GIS)
Ground-based monitoring system
Aerial monitoring system

Description of monitoring system
Monitoring Activities are conducted by GAR and divided into two parts: Indirect Monitoring (Remote Sensing) a. In collaboration with MacDonald Detweiller & Associates (MDA) Canada for deforestation monitoring at 18 PTs that are implementing RSPO New Planting Procedure (NPP) Policy b. Internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and Aerial Photo shoot from unmanned aircraft or drone. (This is the part of Aerial Monitoring System) c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other references from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry d. GIS (Geographic Information System) monitoring; our company executes and analyzes participatory mapping from satellite photos Direct Monitoring a. Verification activities at sites every 6 months. This monitoring covers all of our operational areas. (This is the part of ground based monitoring system)

Recent infraction(s)
No

Explanation of infraction
<Not Applicable>

Forest risk commodity
Palm Oil

Own and/or manage land?
Owned and managed land

Type of control
Other type of control, please specify (Financial and Operational)

Description of type of control
GAR is one of the leading palm oil plantation companies with a total planted area of 500,481 hectares (including plasma smallholders) as at 30 June 2018, located in Indonesia. As at end 2017, the composition of estates owned by GAR (called ‘nucleus’) and estates owned by smallholders (called ‘plasma’) was 80 percent and 20 percent, respectively. Founded in 1996, GAR was listed on the Singapore Exchange in 1999 and has a market capitalisation of US$2.8 billion as at 30 June 2018. GAR has several subsidiaries, including PT SMART Tbk. which is listed on the stock exchange in Indonesia.

Country/Region
Indonesia

Land type
Other, please specify (Land Certified by ISCC)

Size (Hectares)
291000

Do you have a system in place to monitor forests-related risks?
Yes

Type of monitoring system
Geographic Information System (GIS)
Ground-based monitoring system
Aerial monitoring system

Description of monitoring system
Monitoring Activities are conducted by GAR and divided into two parts: Indirect Monitoring (Remote Sensing) a. In collaboration with MacDonald Detweiller & Associates (MDA) Canada for deforestation monitoring at 18 PTs that are implementing RSPO New Planting Procedure (NPP) Policy b. Internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and Aerial Photo shoot from unmanned aircraft or drone. (This is the part of Aerial Monitoring System) c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other references from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry d. GIS (Geographic Information System) monitoring; our company executes and analyzes participatory mapping from satellite photos Direct Monitoring a. Verification activities at sites every 6 months. This monitoring covers all of our operational areas. (This is the part of ground based monitoring system)
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g. GIS (Geographic Information System) monitoring, our company executes and analyzes participatory mapping from satellite photos Direct Monitoring a. Verification activities at sites every 6 months. This monitoring covers all of our operational areas. (This is the part of ground based monitoring system)

**Recent infraction(s)**
No

**Explanation of infraction**
<Not Applicable>

**Forest risk commodity**
Palm Oil

**Own and/or manage land?**
Owned and managed land

**Type of control**
Other type of control, please specify (Financial and Operational)

**Description of type of control**
GAR is one of the leading palm oil plantation companies with a total planted area of 500,481 hectares (including plasma smallholders) as at 30 June 2018, located in Indonesia. As at end 2017, the composition of estates owned by GAR (called 'nucleus') and estates owned by smallholders (called 'plasma') was 80 percent and 20 percent, respectively. Founded in 1996, GAR was listed on the Singapore Exchange in 1999 and has a market capitalisation of US$2.8 billion as at 30 June 2018. GAR has several subsidiaries, including PT SMART Tbk. which is listed on the stock exchange in Indonesia.

**Country/Region**
Indonesia

**Land type**
Other, please specify (Land Certified by ISPO)

**Size (Hectares)**
205700

**Do you have a system in place to monitor forests-related risks?**
Yes

**Type of monitoring system**
Geographic Information System (GIS)
Ground-based monitoring system
Aerial monitoring system

**Description of monitoring system**
Monitoring Activities are conducted by GAR and divided into two parts: Indirect Monitoring (Remote Sensing) a. In collaboration with MacDonald Detweiller & Associates (MDA) Canada for deforestation monitoring at 18 PTs that are implementing RSPO New Planting Procedure (NPP) Policy b. Internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and Aerial Photo shoot from unmanned aircraft or drone. (This is the part of Aerial Monitoring System) c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other references from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry d. GIS (Geographic Information System) monitoring; our company executes and analyzes participatory mapping from satellite photos Direct Monitoring a. Verification activities at sites every 6 months. This monitoring covers all of our operational areas. (This is the part of ground based monitoring system)

**Recent infraction(s)**
No

**Explanation of infraction**
<Not Applicable>
(F1.5) Does your organization collect production and/or consumption data for your disclosed commodity(ies)?

<table>
<thead>
<tr>
<th>Data availability/Disclosure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
</tr>
<tr>
<td>Palm Oil</td>
</tr>
<tr>
<td>Cattle products</td>
</tr>
<tr>
<td>Soy</td>
</tr>
<tr>
<td>Other - Rubber</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

(F1.5a) Disclose your production and/or consumption data.

**Forest risk commodity**
- Palm Oil

**Data type**
- Production data

**Volume**
- 2180000 Metric tons

**Data coverage**
- Full commodity production/consumption

**Please explain**
GAR maintains its position as the leading oil palm plantation group in Indonesia with estates spanning the archipelago. We manage 172 oil palm estates with a total area of 502,847 hectares. As at end 2017, the planted area consists of estates owned by GAR (called ‘nucleus’) totaling 399,995 hectares and estates owned by smallholders (called ‘plasma’) amounting to 102,852 hectares. The harvested FFB are processed in GAR-owned milling facilities, which are strategically located near the plantations, to produce CPO and PK. GAR has 46 mills with a combined installed annual capacity of 13.3 million tonnes of FFB. During the year, our mills produced 2.18 million tonnes of CPO and 545,000 thousand tonnes of PK.

F1.6
**F1.6** Have you identified sufficient sources of sustainable materials to meet your current operational needs? If yes, what are you doing to ensure the security/continuity of this supply?

**Palm Oil**

**Sustainable source identified**
Yes

**Primary action to ensure supply**
Engaging in capacity building activities in the value chain

**Please explain**
We ensure our supply of sustainable materials is adequate through supply chain mapping and capacity building activities. We are focused on transforming our supply chain to ensure they are engaged in sustainable palm oil production in compliance with our own policies to minimise supply chain risks and disruptions. We achieved 100% TTP for all GAR-owned mills in 2017 and know all suppliers which supply GAR-owned mills. We are now aiming to have our 3rd-party suppliers implement TTP by end 2020. At the same time, we focus on improving the productivity of smallholders while complying with sustainable palm oil production practices. Mapping and capacity building helps give us visibility over our supply chain and enables us to ensure sufficient supply of responsibly produced palm oil as well as to manage and mitigate supply chain risks. Amongst our efforts: - Support for 100% of 69,100 plasma smallholders – managing their estates and ensuring compliance with the GAR Social and Environmental Policy. Plasma smallholders have access to GAR’s high-yielding seeds ensuring optimum productivity. They are also regularly trained in Good Agricultural Practices. This helps ensure that plasma smallholder yield is comparable to the main nucleus estates and this is important as they contribute over 20% Fresh Fruit Bunch supply to our operations. - Innovative Financing and other support schemes for 4,500 independent smallholders to date to help them boost productivity and adopt better agricultural practices - 79 visits to 73 supplier mills since 2015; 40 suppliers visited in 2017. This is done to assess supply chain risks and to assess their regulatory and sustainability compliance. - Site visit and analysis of Belawan and Tarahan Refinery suppliers (including smallholders) completed - Annual SMART SEED workshop for suppliers to help them with regulatory and sustainability compliance - Special workshop on Leuser Ecosystem for suppliers operating near the area to help them strengthen their own procurement practices to ensure no procurement from growers operating illegally in the protected area - Increasing partnerships with customers to support improvement in smallholders’ livelihoods and sustainability These efforts ensure that we continue to have reliable sources of raw materials over the next two years.

**F1.7**

**F1.7a**

**F1.7a** Describe the forests-related detrimental impacts experienced by your organization, your response, and the total financial impact.

**Forest risk commodity**
Palm Oil

**Impact driver type**
Physical

**Primary impact driver**
Increased severity of extreme weather events

**Weather events include El Nino events**

**Primary impact**
Reduction or disruption in production capacity

**Description of impact**
This primarily impacts our upstream (plantation) operations. It also has the potential to disrupt our logistics and our supply chain. Palm trees require a constant amount of rainfall for healthy growth. Prolonged drought will impact fruit production as it stresses the trees. Meanwhile, excessive rain and flooding will also negatively impact fruit production. The same negative impacts would also affect our suppliers. Transportation delay also occurs especially during the rainy season where roads may be damaged. Our palm third-party suppliers may also see their production impacted. The last severe weather phenomenon El Nino of 2015 saw its peak
impact in the second half of 2015, leading to a 10-15% drop in palm oil production.

**Primary response**
New product/technology development

**Total financial impact**
10

**Description of response**
Our in-house research facility, SMARTRI, conducts research and development to produce new improved seed stock that is drought resilient. SMARTRI also continuously looks for ways to improve agricultural practices that take into account changing weather patterns. New high-yielding and more resilient seeds have already been developed and are scheduled for rollout in the plantations in the next 5 years. The negative financial impact is from decreased production which based on the last severe El Nino weather phenomenon ranged between a 10-15% percent drop in palm oil production.

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**Forest risk commodity**
Palm Oil

**Impact driver type**
Physical

**Primary impact driver**
Forest fires

**Primary impact**
Reduction or disruption in production capacity

**Description of impact**
Haze from forest fires can affect the wellbeing of our workers, reduce fruit production, and delay/disrupt our upstream and downstream operations. Fires can also damage plantation and conservation areas. During the last severe haze season which lasted throughout H2 2015, palm oil production was impacted with a drop of between 10-15%.

**Primary response**
Promotion of best practice and awareness

**Total financial impact**
10

**Description of response**
GAR has had a Zero Burning Policy since 1997. This is now incorporated into the GSEP which also contains a commitment not to develop peatlands. We invest in new fire response and fire-fighting equipment for our own operations, including drones and increased satellite surveillance. We have also trained 10,000 of our personnel to remain on standby to rapidly suppress fires. We engage with communities in participatory fire prevention programmes: - Our fire prevention programme, Desa Siaga Api was piloted in 2017 in 17 villages in West Kalimantan and Jambi. We work with schools to spread knowledge and awareness about the dangers of forest fires and the importance of forest conservation to school children. In 2016, we worked with 22 schools involving 1,500 students in West Kalimantan. At the end of the first year of the programme, all the villages met targets for fire prevention and qualified for community infrastructure support. 3 villages were also selected as national showcases by the Government of Indonesia. The pilot will now evolve into an expanded programme called Desa Makmur Peduli Api and will focus on three elements: fire prevention, forest conservation and food security. In 2017 the number of hotspots can fire cases dropped by 99% compared to the previous year. Financial impact is variable and can range between a 10-15% percent drop in palm oil production depending on the severity of the dry season and exacerbated by haze pollution.

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**F2. Procedures**

**F2.1**

**(F2.1) Does your organization undertake a forests-related risk assessment?**
Yes, forests-related risks are assessed
F2.1a

(F2.1a) Select the options that best describe your procedures for identifying and assessing forests-related risks.

**Palm Oil**

**Value chain stage**
- Direct operations
- Supply chain

**Coverage**
- Full

**Risk assessment procedure**
- Assessed as part of an established enterprise risk management framework

**Frequency of assessment**
- Six-monthly or more frequently

**How far into the future are risks considered?**
- > 6 years

**Tools and methods used to identify and assess risks**
- Internal company methods
- External consultants
- Global Forest Watch Commodities (GFW Commodities)
- Sustainability Policy Transparency Toolkit (SPOTT)
- National specific tools and databases
- Other, please specify (DJSI, FTSE4Good, materiality assessment)

**Please explain**

We identify and assess risks through various approaches such as:
- Materiality assessments involving external and internal stakeholders to identify and monitor emerging issues/risks
- Regular discussion in operations meetings and sustainability committee meetings
- Completion of various sustainability assessments such as social impact assessment, participatory mapping, High Conservation Value (HCV), High Carbon Stock (HCS), social baseline study, sustainable livelihood assessments, etc.
- Grievance and complaint channels where we are able to analyse problems and assess risks through the inputs
- Risk assessment through certification audits with RSPO, ISCC, ISPO
- Monitoring of our conservation area through patrolling and aerial photography
- Assessment of our supply chain risks through traceability to plantation and engagement with suppliers
- Participation and assessment for inclusion in international ESG indices and other platforms including Dow Jones Sustainability Index, FTSE4Good, Sustainalytics, SPOTT etc.
- Commissioning external parties to assess our practices specifically, we conduct deforestation risk assessments firstly through participatory mapping to map out boundaries alongside assessments of HCS and HCV within our concessions. These assessments are in progress and we aim to do this in all of our concessions. We are also improving our peatland inventory. We engage with our suppliers and request that they conduct HCV assessments and encourage them to adopt the HCS Approach. We work together with The Forest Trust for risk assessment of our sustainable supply chain. We conduct systematic mapping and risk assessments of our suppliers and identify plantations or mills that are located near a forest area or in regions that are highly vulnerable to deforestation. We have also commissioned external parties to assess our practices on the ground and to alert us to issues and risks that need to be managed including Rainforest Alliance which assessed our implementation of the GSSEP in three concessions in West Kalimantan. Their assessment and our action plan to address the issues raised by RA are publicly available on the GAR website: https://goldenagri.com.sg/wp-content/uploads/2017/12/Rainforest-Alliance-releases-evaluation-of-GAR-221217-FINAL.pdf

F2.1b

(F2.1b) Which of the following issues are considered in your organization’s forests-related risk assessment(s)?
Availability of forest risk commodities

Relevance & inclusion
Relevant, sometimes included

Please explain
The majority of our concessions are located far from forests and we do not have plantations on deforested areas. Nevertheless, we still conduct forests-related risk assessments, and consider this issue in the assessment. Availability of raw materials i.e. fresh fruit bunch for milling and CPO for refining is a critical matter to our operations. We work internally and with suppliers to ensure optimum productivity and output of our milling, refining, and processing operations. Risks of availability of products are assessed and managed through review of plantation operations and purchasing orders and engagement with our suppliers. This is a current issue.

Quality of forest risk commodities

Relevance & inclusion
Relevant, sometimes included

Please explain
The majority of our concessions are located far from forests and we do not have plantations on deforested areas. Nevertheless, we still conduct forests-related risk assessment, and consider this issue in the assessment. The quality of our raw materials i.e. fresh fruit bunches and CPO is critical to our operations. Our mills, for example, set a certain free fatty acid percentages in the FFB to ensure that the fruits can be processed for a good quality CPO. This risk is assessed, managed and minimised through regular tests and checks of FFB and the end products. This is a current issue.

Impact of activity on the status of ecosystems and habitats

Relevance & inclusion
Relevant, always included

Please explain
As a leading agribusiness we are aware that we must be careful stewards of our natural resources and minimise impacts on ecosystems and habitats if we are to remain in the business over the long term. We are committed under the GSEP to:
- No development of and the conservation of High Carbon Stock forests
- No development of and the conservation of High Conservation Value areas
- No development of and the conservation of peatlands of any depth
- No burning for new plantings, replantings or other development
- Report and reduce GHG emissions
- Improve waste management
Internal checks and audits are conducted to ensure proper implementation of these environmental management commitments. External checks/audits also take place when we undergo the certification process for sustainable palm oil. Failure to properly implement these commitments may lead to negative perceptions and reputational/brand damage, which may in turn lead to potential loss of markets. This is a current issue.

Regulation

Relevance & inclusion
Relevant, always included

Please explain
Our business is subject to a variety of laws and regulations that promote environmentally and socially sound operating practices. These regulations could become more stringent in the future. The government environmental agencies have the power to take action against us for failure to comply with applicable environmental regulations, including imposing fines and revoking licenses. We are fully aware of the greater importance on environmental measures and regulations. We have a separate department that closely monitors and update current requirements of relevant regulations. We will ensure our compliance to relevant regulations to avoid any liabilities that may incur in the future.

Climate change

Relevance & inclusion
Relevant, always included

Please explain
The majority of our concessions are located far from forests and we do not have plantations on deforested areas. Nevertheless, we still conduct forests-related risk assessment, and consider this issue in the assessment. Our fresh fruit bunch yield is very dependent on weather conditions in Indonesia. Excessive rainfall or extensive period of dry weather will lead to a decrease in the overall yield. Excessive rainfall generally leads to poor pollination of palms and reduces the effectiveness of fertilisers, while drought results in less fruit bunches and lower oil extraction rate. High levels of drought might also trigger fire outbreaks in the plantations. We have implemented various measures at our plantations to reduce the impact of weather conditions on our plantations, including the construction of drainage and irrigation systems and roads and the establishment of certain planting patterns. Historically, CPO prices typically increase when supply is adversely affected by weather conditions, thereby reducing the impact of the decrease in supply. We also extend our efforts around long term fire prevention. This is a current issue.
Tariffs or price increases

Relevance & inclusion
Relevant, always included

Please explain
Regulations relating to palm oil in Indonesia such as export tax and levy as well as import tariffs, taxes and other restrictions imposed by importing countries might impact the Company. In line with social and economic policies, from time to time, the Indonesian government may impose new policies on the palm oil industry. Foreign governments may also seek to impose levies/tariffs/bans on palm oil based on deforestation concerns. Import tariffs and taxes and other import restrictions imposed by importing countries will affect the demand for CPO and its derivative products, and can encourage substitution by other vegetable oils. If importing countries ban imports of CPO from Indonesia, tax competing substitute products, such as soybean oil, at a lesser tax rate, the competitiveness of imported CPO and derivative products can be adversely affected, which can affect the demand for and the price of our products. We are actively involved in oil palm-related organisations and collaborate with industry stakeholders in providing positive inputs to the Indonesian government in order to create conducive regulations for the palm oil industry, and to other stakeholders both domestic and international. This is a current issue.

Loss of markets

Relevance & inclusion
Relevant, always included

Please explain
Negative perceptions and public campaigns against palm oil based on concerns surrounding palm oil and deforestation can result in the potential loss of markets especially in the developed world. We assess this risk through various ways including monitoring of media reports, social campaigns and market intelligence gathering. This is an emerging issue.

Brand damage related to forest risk commodities

Relevance & inclusion
Relevant, always included

Please explain
Negative perceptions and public campaigns against palm oil based on concerns surrounding deforestation can result reputational damage and lead to potential boycotts/loss of markets. We assess this risk through various ways including monitoring of media reports, social campaigns and market intelligence gathering. This is a current issue.

Corruption

Relevance & inclusion
Not relevant, included

Please explain
We have a Company Code of Conduct, which serves as a guide for conducting business ethically and in compliance with the law. Our suppliers must also comply with our Supplier Code of Conduct. We further minimise the risk of corruption through good governance and having a company structure that allows for strong accountability.

Social impacts

Relevance & inclusion
Relevant, always included

Please explain
We assess social impacts by conducting social impact assessments for all of our plantation areas and have them monitored yearly. In certain cases conflicts arising from competing stakeholder interests may happen. For example, the use of land under our concession for community gardens that may otherwise be conserved. As much as possible we balance our assessments and decisions to preserve the rights of communities and to conserve the environment. We are implementing Participatory Mapping and Participatory Conservation Planning with the communities to involve them in joint conservation and improve land use mapping. We conduct mapping of latent conflict and have several measures such as free, prior, informed, consent process, conflict handling, and grievance mechanisms to reduce this risk.

Other, please specify

Relevance & inclusion
Please select

Please explain
Customers

Relevance & inclusion
 Relevant, always included

Please explain
Customers expect our business to comply with their sustainability standards/policies. We work closely with our customers to comply with their expectations of sustainability standards. Different customers have different supply chain policies that we need to adhere to. We are also in partnership with customers who are keen to work deeper in the areas where our plantations are through co-funding of projects that reduce deforestation risks. We engage with our customers through: • Multi-stakeholder forums and industry groups • Presentations and meetings • Field visits • Consumer Focus Group Discussion • Monthly e-update • GAR website • GAR Sustainability Dashboard • Annual Report • Sustainability Report • Social media • Materiality Assessment The frequency of engagement varies depending on the method of engagement. For eg, we engage with our customers through monthly e-updates, materiality assessments and interviews every 2-3 years and conduct visits to the plantation and operations frequently. Outcomes from engagement include: • Improved reputation • Better understanding of GAR’s sustainability progress • Partnerships in community and conservation projects

Employees

Relevance & inclusion
 Relevant, always included

Please explain
Employees need to be aware of the company’s policy on sustainably produced palm oil including our commitments on forest and biodiversity conservation and protection and they need to be trained in order to properly implement the company’s sustainability commitments on the ground and to be in full compliance with the policy. We engage our employees through: • Annual appraisals • Townhall meetings • Internal campaigns e.g. World Environment Day • Trade union meetings • GAR website • GAR Sustainability Dashboard • Social media and digital signage • Celebration of major festivals • HR training • Materiality Assessment The frequency of engagement varies depending on the method of engagement and can be biannually in terms of townhall meetings, annually through training programmes and every 2-3 years through the materiality assessment. Outcomes of engagement include: • Better understanding • of company policies • Improved awareness of company’s actions towards responsible palm oil

Investors

Relevance & inclusion
 Relevant, always included

Please explain
Investors expect the company to manage its ESG risks including forest-related risks, and financial institutions want the company to be compliant with their internal policies on responsible financing. Failure to manage ESG risks could lead to the risk of poor credit profiling. We engage our investors through: • Quarterly analyst briefings • One-on-one communications • Field visits • Monthly e-update • GAR website • GAR Sustainability Dashboard • Annual Report • Sustainability Report • Social media • Materiality Assessment The frequency and timing of the engagement varies and includes scheduled engagement such as analyst briefings, monthly e-updates as well as ad hoc such as through field visits and every 2-3 years through a materiality assessment. Outcomes include: • Improved reputation • Better credit profiling by banks • Foundation for good long-term relationship and engagement

Local communities

Relevance & inclusion
 Relevant, always included

Please explain
We need the support and buy-in of local communities to enable us to carry out forest conservation projects successfully while ensuring that their economic and social development continues. We also need to engage the community in long-term forest fire prevention efforts. We engage local communities through: • Participatory mapping and participatory conservation approach and community development programmes • Complaint handling, grievance procedures and conflict resolution mechanisms • Dialogue and consultation with community groups and representatives • Community programmes • Outreach programmes to combat fire and haze The timing and frequency of engagement varies and includes scheduled consultations for conservation planning, ad hoc engagement to deal with grievances and conflict resolution and annual community programmes such as fire-free programmes. Outcomes include: • New community conservation partnerships to protect forests • Developed and improved guidelines and capacity in areas such as mediation, conflict management and Participatory Mapping to facilitate the successful implementation of the GSEP • Continued investment in comprehensive range of community programmes • Successful Desa Makmur Peduli Api programme
NGOs

Relevance & inclusion
Relevant, always included

Please explain
NGOs subject the industry’s practices to scrutiny and can publicise negative impacts such as deforestation leading to reputational damage. Conversely, we also collaborate and work with NGOs to develop new standards in forest conservation. We engage through: • Multi-stakeholder forums and events • One-on-one communications • Monthly e-update • GAR website • GAR Sustainability Dashboard • Annual Report • Sustainability Report • Social media • Materiality Assessment The timing and frequency varies according to the method of engagement with regular engagement through one-on-one communications, ad hoc when responding to a grievance or issue, as well as monthly communication through e-updates and every 2-3 years through the materiality assessment. Outcomes include: • Feedback and input for the development of GSEP • Joint development of HCS Approach • Awareness of company’s actions towards responsible palm oil

Other forest risk commodity users/producers at a local level

Relevance & inclusion
Relevant, always included

Please explain
Producers at a local level located near our plantation could likely want to supply to our mills. Therefore we treat them as our suppliers / potential suppliers. Please refer to the “Supplier” box for explanation of engagement and method of engagement.

Regulators

Relevance & inclusion
Relevant, always included

Please explain
It is important for us to monitor and keep abreast of possible/new environmental/forest-related regulations that could impact our business/operations. We engage them through: • One-on-one meetings • Field visits • Multi-stakeholder forums and events • Monthly e-update • GAR website • GAR Sustainability Dashboard • Annual Report • Sustainability Report • Materiality assessment Our engagement varies in timing and frequency including scheduled meetings with government agencies, ad hoc briefings and field visits and every 2-3 years through surveys and interviews for our materiality assessment. Outcomes include: • Better understanding of the palm oil industry and GAR's sustainability commitments and initiatives • Collaboration in smallholder development projects for e.g. Innovative Financing Scheme • Community outreach programme on fire prevention focus on tackling fire and haze • Collaboration with Indonesia Estate-Crop Fund for Palm Oil (BPDP Sawit) and other government institutions on palm oil supply chain development

Suppliers

Relevance & inclusion
Relevant, always included

Please explain
Our sustainability policy - GSEP - also applies to our supply chain and we are focused on sharing responsible practices and transforming our supply chain. This helps us minimise supply chain risks and reputational damage. We engage suppliers to: • Ensure they understand GSEP compliance • Help them adopt responsible practices including environmental management, social/community engagement, fire and haze prevention, labour practices • Help them build capacity • achieve 100% Traceability to the Mill • collaborate on carrying out Traceability to the Plantation by 2020 • increase smallholder inclusion • share best practices in responsible palm oil • Help smallholders towards certification We engage them through: • Supplier Support Team and dedicated e-helpline • One-on-one communications • Workshops and training sessions • Site visits • Questionnaires and self-assessments Engagement includes scheduled site visits and assessments, ad hoc site visits and engagement in case of grievance handling and annual training programmes and workshops. Outcomes include: • Improved engagement • 100% Traceability to the Mill • Collaboration on carrying out Traceability to the Plantation by 2020 • Smallholder inclusion • Best practices sharing in responsible palm oil • Helping smallholders towards certification

Other stakeholders, please specify

Relevance & inclusion
Please select

Please explain
F3. Risks and opportunities

F3.1

(F3.1) Have you identified any inherent forests-related risks with the potential to have a substantive financial or strategic impact on your business?

<table>
<thead>
<tr>
<th>Risk</th>
<th></th>
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<tbody>
<tr>
<td>Timber</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Palm Oil</td>
<td>Yes, both in direct operations and the rest of our value chain</td>
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<tr>
<td>Cattle Products</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Soy</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Other - Rubber</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Other</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

F3.1a

(F3.1a) How does your organization define substantive impact on your business?

Our organisation defines substantive impact as an impact that has a meaningful or important effect to our business, which affects a large proportion of our business units, creates further impacts on those business units, and potentially becomes a material concern for our stakeholders. These impacts occur due to the forest-related risks such as extreme weather events, forest fires, declining ecosystem services, changes to national legislation, changes to international law and bilateral agreements, changes in land tenure regulations, conflicts of land ownership and occupancy rights, negative media coverage, local community opposition, as well as uncertainty about product origin and legality.

Those risks create substantive impacts on our business which are:

a. Reduction or disruption in production capacity (in tonnes): production capacity is calculated as the sum of fresh fruit bunch output and palm product output.

b. Increased operational cost (in US Dollar): operational cost consists of selling expenses, general and administrative expenses. Selling expenses comprise of export tax and levy, transportation and delivery, export administration, salaries, wages, and employees' benefits, as well as advertising and promotions. General and administrative expenses comprise of salaries, wages and employees' benefits, rent, taxes and licenses, depreciation and amortisation, repairs and maintenance, travelling, and professional fees.

c. Disruption in product supply (in million MT)

d. Reduced demand for products and services (in million MT)

e. Disruption to sales (in USD): Our sales mostly comprise Crude Palm Oil (CPO) and Palm Kernel (PK) including their derivative products, such as cooking oil, margarine, shortening and biodiesel.

f. Brand damage
For your disclosed forest risk commodity(ies), provide details of risks identified with the potential to have a substantive financial or strategic impact on your business, and your response to those risks.

**Forest risk commodity**
Palm Oil

**Type of risk**
Physical

**Geographical scale**
Region

**Where in your value chain does the risk driver occur?**
Direct operation
Supply chain

**Primary risk driver**
Increased severity of extreme weather events

**Primary potential impact**
Reduction or disruption in production capacity

**Company-specific description**
Extreme weather events such as El Nino weather phenomenon can periodically bring prolonged drought. Other events include flooding. The weather events generally affect several regions where we have operations. Extreme weather events create unfavorable conditions for fresh fruit bunch production as the palm trees become stressed. This will reduce the palm product output. Flooding or forest fires and haze caused by extreme dry weather can also disrupt our supply chain and logistics. As extreme weather events disrupt our operation, this increases our operational cost. Lastly, extreme weather events can also create many negative impacts for our employees and their families in local communities including impacts on health and worker productivity.

**Timeframe**
>6 years

**Magnitude of potential impact**
Medium-high

**Likelihood**
Likely

**Potential financial impact**
10

**Explanation of financial impact**
Excessive rainfall or extensive period of dry weather will lead to a decrease in the overall yield. Excessive rainfall generally leads to poor pollination of palms and reduces the effectiveness of fertilisers, while drought results in less fruit bunches and oil extraction rate. This will lead to the reduction of revenue from palm oil production and increasing our operational costs for handling the disruption in our business operations. The financial impact is variable and depends on the severity of the extreme weather event but based on the last severe El Nino, it can range from between 10-15% of decline in production during an extreme El Nino year.

**Primary response to risk**
New product/technology development

**Description of response**
Our flagship in-house research facility, SMART Research Institute focuses on developing better seed stock to take into account changing and extreme weather events, such as increasing drought and flood resilience. SMARTRI has also started testing different strains of palm oil seed to see how they cope with high CO2 levels in the environment which will enable them to develop new seeds which can thrive in high CO2 levels. New super high-yielding clonal seeds Eka 1 and Eka 2. launched in 2017 will be ready for replanting in GAR plantations by 2022. SMARTRI is also focusing on constantly innovating and improving agronomic practices to help mitigate the worst impacts of flooding and/or drought. These practices are constantly being rolled out at the plantation level. The implementation of these initiatives are ongoing and will continue in the foreseeable future.

**Cost of response**
12000000

**Explanation of cost of response**
Our annual R & D budget is currently at around 12 million USD - a portion of which is used for R & D on adapting to extreme weather phenomenon and climate change.
Forest risk commodity
Palm Oil

Type of risk
Physical

Geographical scale
Region

Where in your value chain does the risk driver occur?
Direct operation
Supply chain

Primary risk driver
Changes in precipitation patterns

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
Changes in precipitation pattern occur due to climate change. The rainfall can increase heavily during the rainy season and decrease heavily during the dry season in some areas in Indonesia, while in other areas the pattern can be reversed. Excessive rainfall or insufficient rainfall can impact fresh fruit bunch production. This will reduce the palm product output, and potentially disrupt our supply chain and logistics. The latter can lead to a rise in operational costs.

Timeframe
1-3 years

Magnitude of potential impact
Medium-high

Likelihood
Likely

Potential financial impact
10

Explanation of financial impact
Excessive rainfall or extensive period of dry weather will lead to a decrease in the overall yield. Excessive rainfall generally leads to poor pollination of palms and reduces the effectiveness of fertilizers, while drought results in less fruit bunches and oil extraction rate. This will lead to the reduction of our revenue from palm oil production while increasing our operational costs for handling the disruption in our business operations. The financial impact is variable (for eg. prices of CPO tend to rise if supply is tight thus potentially offsetting a fall in revenue due to fall in production). Ultimately the impact depends on the severity of the change in precipitation - based on the last severe drought, it can range from between 10-15% of decline in production.

Primary response to risk
Voluntary engagement in conservation projects (including reforestation, afforestation and ecosystem restoration)

Description of response
GAR has implemented measures to mitigate climate change which can lead to changes in precipitation patterns. Based on GAR Social and Environmental Policy (GSEP), we mitigate climate change by conserving High Carbon Stock (HCS) and High Conservation Value (HCV) forests. Successful conservation of HCS and HCV forests is one of the ways in which we retain large stores of carbon and help avoid GHG emissions which contributes to climate change. Currently we have identified and set aside 72,000 ha as conservation area. We are also working in partnership with local communities on conservation – to date, 13 villages have agreed to set aside over 7,700 hectares of HCS forests for conservation. While we work on an overall GHG reduction strategy to be ready in the next 6 months, we are also reducing GHG emissions through methane capture facilities which can reduce emissions by some 50% on site at a number of mills in Central Kalimantan, Jambi, and Riau. The captured methane gas is used as an alternative energy source. We are also committed to no development on peat, and the implementation Best Management Practice (BMP) for peatlands, and rehabilitate degraded peatland. This is crucial for reducing GHG emissions and maintaining hydrological function to prevent floods. Lastly, we conserve riparian buffer zones and water catchment areas to maintain hydrological functions. The implementation of these measures are currently ongoing.

Cost of response

Explanation of cost of response
Our environmental management efforts in this area are considered part of our overall operational costs and we therefore do not have a separate cost of response.
Forest risk commodity
Palm Oil

Type of risk
Physical

Geographical scale
Region

Where in your value chain does the risk driver occur?
Direct operation
Supply chain

Primary risk driver
Forest fires

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
Fires and resultant haze in Indonesia can damage our plantation, conservation areas, and wildlife habitats. Fires and resultant haze stresses the palm trees leading impacting fruit production. It will significantly reduce our production and delay operations which leads to disrupt our supply chain and logistics. Haze from forest fire will affect health and well-being of our workers and local communities. Forest fires will release huge amount of GHG which exacerbates climate change and extreme weather phenomenon. Lastly, the issue of fires and haze can potentially damage our reputation.

Timeframe
1-3 years

Magnitude of potential impact
High

Likelihood
Likely

Potential financial impact
10

Explanation of financial impact
Forest fires will decrease the overall yield which leads to the reduction of our revenue from palm oil production. It will also increase our operational costs for handling the damage of our plantation or conservation areas, as well as handling the disruption in our supply chain and logistics. Negative impact on the health and well-being of our workers will also generate additional cost. The financial impact is variable and depends on the severity of the conditions which includes fire, haze and severe drought (which is generally present in these conditions). Based on the last severe fire and haze season, output can decline between 10-15% depending on the severity of the conditions.

Primary response to risk
Promotion of best practice and awareness

Description of response
We have implemented a Zero Burning Policy since 1997 and we consistently engage farmers and local community to advocate no-burning as well. This preventative approach also involves ensuring all illegal fires are reported to the authorities to enable them to take appropriate actions. We also continued our long-term community collaboration on fire prevention with 17 local villages in 2017, through the Desa Makmur Peduli Api (DMPA) programme in Ketapang, Kalimantan and Jambi, Sumatra. In 2018, we extended the DMPA programme to five more villages in Indragiri, Riau and 10 villages in Central Kalimantan. We train the villagers to rapidly suppress fires and educate them on the dangers of fire and to stop using fire to clear land. In the 2 years since its implementation the programme has been successful in reducing hotspots and firespots by about 80 -90 percent. We have committed to not develop peatlands since 2010. Keeping the peat areas moist by re-wetting the areas with water from rivers and ponds, which were constructed for that purpose, is one of our measure to reduce the risk of forest fires. We are currently rehabilitating a 2,600 ha area of peatland in West Kalimantan. We also implement fire management in our concession areas with monitoring, provision of firefighting equipment and training 10,000 Emergency Response personnel to suppress fires. We also communicate with and educate our suppliers on Zero Burning. All initiatives are ongoing.

Cost of response
180000

Explanation of cost of response
The above figure of 180,000 USD refers specifically to the amount that we spend on the community collaboration fire-free programmes per year (as of 2017). Our other costs such as maintaining preparedness in fighting and suppressing fires are
considered part of our overall operational costs.

**Forest risk commodity**
Palm Oil

**Type of risk**
Regulatory

**Geographical scale**
Country

**Where in your value chain does the risk driver occur?**
Direct operation
Supply chain

**Primary risk driver**
Changes to national legislation

**Primary potential impact**
Increased compliance costs

**Company-specific description**
National legislation evolves and can become more stringent over time. For example, Ministry of Agriculture of Indonesia issued Indonesia Sustainable Palm Oil (ISPO) policy in 2015 which aims to increase the competitiveness of Indonesian palm oil in the global market and reduce GHG emissions and to focus on environmental issues. To date, over 205,700 hectares of plantations and 32 mills have received ISPO certification. ISPO mandates palm oil producers to conduct both GHG inventory and mitigation of emission sources, including mandatory planning of methane capture. These measures are done by GAR already.

**Timeframe**
1-3 years

**Magnitude of potential impact**
Medium-low

**Likelihood**
Likely

**Potential financial impact**
105000000

**Explanation of financial impact**
Changes in national legislation will create a financial impact on our business since in order to adhere to the new legislation, we need to change several aspects of our business. Implementing these changes increase our operational cost. In order to comply with ISPO, we need to have methane capture facility which creates a financial impact. With an assumption the cost of a methane capture facility to capture and utilize the biogas from POME is around USD 2 – 3.5 million, the total capital cost will be around USD 60 – 105 million. Plus operational costs for maintenance and plant upkeep until the end of system lifetime.

**Primary response to risk**
Implementation of environmental best practices in direct operations

**Description of response**
Under the GAR Social and Environmental Policy (GSEP), we are committed to comply with all relevant national laws and international certifications and criteria. We continuously engage with national government stakeholders and we monitor all relevant news and developments which may impact our business and industry. With regards to complying with ISPO, we have total 7 methane capture facilities in place to utilise biogas for energy to generate electricity for the operations in our mills in 2017, and we plan to expand on these activities through working on new and improved facilities. We are also currently working on implementing GHG reduction measures, such as: CO-composting, Energy Management System, etc.

**Cost of response**
105000000

**Explanation of cost of response**
With an assumption the cost of a methane capture facility to capture and utilize the biogas from POME is around USD 2 – 3.5 million, the total capital cost will be around USD 60 – 105 million. Plus operational costs for maintenance and plant upkeep until the end of system lifetime.
Type of risk
Regulatory

Geographical scale
Country

Where in your value chain does the risk driver occur?
Direct operation
Supply chain

Primary risk driver
Changes in land tenure regulations

Primary potential impact
Reduction or disruption in production capacity

Company-specific description
Changes in land tenure regulation can create confusion and uncertainty resulting in delays or disruptions in operations.

Timeframe
1-3 years

Magnitude of potential impact
Medium

Likelihood
About as likely as not

Potential financial impact

Explanation of financial impact
Changes in land tenure regulation can delay our operation as we need to ensure that our operation will still comply with the regulation even when the regulation changes. Therefore, it will disrupt or possibly reduce our production capacity. The financial impact will depend on the magnitude of the change and whether/how it will impact our operations. We consider response to this impact as part of our overall operational costs.

Primary response to risk
Engagement in multi-stakeholder initiatives

Description of response
Through our continuous engagement with national stakeholders including local and national government, we stay updated on potential changes in regulations. Engagement with the government is through:
- One-on-one meetings
- Field visits
- Multi-stakeholder forums and events
- Monthly e-update
- GAR website
- GAR Sustainability Dashboard
- Annual Report
- Sustainability Report
- Materiality assessment

Cost of response

Explanation of cost of response
Engagement with government stakeholders is considered as part of our overall operating costs and we do not have a separate cost of response.

Forest risk commodity
Palm Oil

Type of risk
Regulatory

Geographical scale
Plantation

Where in your value chain does the risk driver occur?
Direct operation
Supply chain

Primary risk driver
Changes to international law and bilateral agreements

Primary potential impact
Reduced demand for products and services
Company-specific description
International law and bilateral agreements evolve and can become more stringent over time. These changes can affect our business and industry. For example, changes to the EU Renewable Energy Directive II can impact the use of palm oil for biofuel and could potentially (negatively) impact palm oil demand. Other legislation which can impact business includes legislation on labour such as laws against modern slavery.

Timeframe
1-3 years

Magnitude of potential impact
Medium

Likelihood
About as likely as not

Potential financial impact
Explanation of financial impact
Changes in international rules/regulations on the usage of palm oil can potentially impact the demand of palm oil negatively. The magnitude of the impact will depend on how the changes affect the demand/sales of palm oil.

Primary response to risk
Greater compliance with regulatory requirements

Description of response
We assess changing rules/regulations and ensure that we are in compliance with regulatory requirements in our target markets. For eg. we ensure that we meet requirements on no deforestation and international labour regulations.

Cost of response
Explanation of cost of response
This is considered part of our overall operational costs and we do not have a separate cost of response.

Forest risk commodity
Palm Oil

Type of risk
Regulatory

Geographical scale
Plantation

Where in your value chain does the risk driver occur?
Direct operation
Supply chain

Primary risk driver
Uncertainty and/or conflicts involving land ownership and occupancy rights

Primary potential impact
Increased operating costs

Company-specific description
Conflicts regarding land ownership and occupancy rights can result in delays or disruptions in operations, as well as damage our reputation.

Timeframe
1-3 years

Magnitude of potential impact
Medium

Likelihood
About as likely as not

Potential financial impact
Explanation of financial impact
Operations can be impacted/delayed due to land ownership conflicts and can impact our operational costs.
Primary response to risk
Engagement with local community

Description of response
Under GAR Social and Environmental Policy (GSEP), we implement FPIC in all our plantations. By implementing FPIC, we ensure that decision-making by indigenous peoples and local communities regarding the presence of our operations is done without pressure and intimidation (free), performed before an activity that has impact on the surrounding communities is carried out (prior), and with sufficient knowledge about the activity and its impact on the surrounding communities (informed), so they may express agreement or disagreement to such activity (consent). For land acquisition, the implementation of this policy includes:
- Participatory Mapping and Land Tenure Study of all indigenous peoples and local community lands prior to negotiation
- Social Impact Assessments carried out using participatory methods, the results of which will be publicly available and actively shared with relevant stakeholders
- Engaged and open negotiation processes
- Documented agreements signed by and shared with all relevant parties
Participatory mapping in particular will help to avoid future land tenure conflicts as map of local community areas/properties is formalised in consultation with local stakeholders and government agencies. This initiative is currently ongoing and as of 2018 over 80 villages have participated in Participatory Mapping.

Cost of response

Explanation of cost of response
This is considered as part of our operational costs and we do not have a separate cost of response.

Forest risk commodity
Palm Oil

Type of risk
Reputational and markets

Geographical scale
Global

Where in your value chain does the risk driver occur?
Direct operation
Supply chain

Primary risk driver
Negative media coverage

Primary potential impact
Brand damage

Company-specific description
Negative media coverage about palm oil and deforestation impacts the public's perception of the palm oil industry in general and our brands in particular. Negative media coverage of our suppliers also impacts our reputation. This can potentially impact demand for palm oil products in various markets.

Timeframe
1-3 years

Magnitude of potential impact
Medium

Likelihood
More likely than not

Potential financial impact

Explanation of financial impact
Negative media coverage of palm oil and links to deforestation can damage our brand image and potentially lead to boycotts of products, leading to a loss in revenue. Investors and banks can also become hesitant to invest in or lend to the company making it more difficult for the company to secure credit. The financial impact depends on how severely the brand is impacted by negative coverage and in which markets.

Primary response to risk
Engagement with suppliers

Description of response
We have strong commitments under the GSEP to no deforestation, no development on peat, no burning etc and we report on these annually through our sustainability report, dashboard and website. We also participate in sustainable palm oil certification schemes including RSPO, ISCC and ISPO. We submit Annual Communications of Progress to RSPO. Therefore our greater priority is on...
transforming our supply chain and ensuring that they are in compliance with the environmental management commitments in the GSEP. We do this through the maintenance of full Traceability to the Mill as well as the achievement of full (100%) Traceability to the Plantation for our own mills. We are now helping our third-party suppliers achieve full TTP themselves by 2020. This enables us to know the origin of our raw materials and at the same time expand our outreach and support to our suppliers to improve and strengthen their responsible palm practices. We conduct assessments of our suppliers through site visits and questionnaires. We also hold annual and special workshops for our suppliers on a range of important topics including achieving sustainable palm oil certification and the importance of forest conservation. These initiatives are ongoing.

Cost of response

Explanation of cost of response
This is considered part of operational costs and we do not have a separate cost of response.

F3.2

(F3.2) Have you identified any forests-related opportunities with the potential to have a substantive financial or strategic impact on your business?

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<th>Forest risk commodity</th>
<th>Have you identified opportunities?</th>
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</thead>
<tbody>
<tr>
<td>Timber</td>
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<tr>
<td>Palm Oil</td>
<td>Yes</td>
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<td>Cattle products</td>
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</table>

F3.2a

(F3.2a) For your selected forest risk commodity(ies), provide details of the identified opportunities with the potential to have a substantive financial or strategic impact on your business.

Forest risk commodity
Palm Oil

Type of opportunity
Markets

Where in your value chain does the opportunity occur?
Direct operation

Primary forests-related opportunity
Driving demand for sustainable materials

Financial incentives
<Not Applicable>

Company-specific description & strategy to realize opportunity
We are committed to producing sustainable palm oil and take part in the RSPO, ISCC and ISPO certification schemes. Our strategy to help drive demand for sustainable palm oil is centred primarily on continuous engagement with stakeholders such as customers, international market forums, the media and end consumers. We also focus on campaigns presenting accurate and factual representations of sustainably-produced palm oil for example our Extraordinary Everyday Campaign which seeks to reframe the debate around palm oil into a more positive frame to counter the negative perceptions of palm oil. See https://goldenagri.com.sg/extraordinareveryday/#the-journey

Estimated timeframe for realization
4-6 years

Magnitude of potential impact
Medium-low
Likelihood
About as likely as not

Potential financial impact
5

Explanation of financial impact
Demand for more sustainable palm oil would help boost revenues as there is generally a premium attached to sustainable palm oil. The premium could range up to 5% and above compared to non-certified palm oil.

Forest risk commodity
Palm Oil

Type of opportunity
Resilience

Where in your value chain does the opportunity occur?
Supply chain

Primary forests-related opportunity
Improved supply chain engagement

Financial incentives
<Not Applicable>

Company-specific description & strategy to realize opportunity
To ensure that we manage supply chain risks including forest-related risks and help transform our palm supply chain into a more responsible and resilient supply chain, we have embarked on traceability to the plantation projects (after achieving full traceability to the mill). A fully traceable supply chain can reduce supply chain risks and helps to differentiate our products as customers demand increased transparency about the source of raw materials and products and assurance that these are not linked to deforestation and other ESG risks. By end 2017, GAR achieved 100% Traceability to the Plantation for its owned mills and is now working with its third-party suppliers to achieve Traceability to the Plantation by end 2020. The TTP projects are enabling us to better engage our supply chain, assess their situations and identify the best ways to support them to become more responsible producers and mitigate forest-related risks, amongst others.

Estimated timeframe for realization
1-3 years

Magnitude of potential impact
Medium-high

Likelihood
Very likely

Potential financial impact

Explanation of financial impact
Achieving full TTP will help us assure our customers that we have full visibility over our supply chain and are working with our suppliers to mitigate forest-related risks amongst others. This can act as an important differentiator for GAR products in the market. The financial impact has not yet been quantified as we are still in the process of helping our suppliers achieve full TTP as well as helping them improve their practices.

F4. Governance

F4.1

(F4.1) Does your organization have a policy that includes forests-related issues?
Yes, we have a documented forests policy that is publicly available
### (F4.a) Select the options to describe the scope and content of your policy.

<table>
<thead>
<tr>
<th>Scope</th>
<th>Content</th>
<th>Please explain</th>
</tr>
</thead>
</table>
| Company-wide  | Commitment to avoiding deforestation and forest degradation  
|               | Commitment to protect rights and livelihoods of local communities  
|               | Commitments beyond regulatory compliance  
|               | Commitment to transparency  
|               | Commitment to stakeholder awareness and education  
|               | Commitment to innovation  
|               | Recognition of the overall importance of forests and other natural habitats  
|               | Description of forest risk commodities, parts of the business, and stages of value-chain covered by the policy  
|               | List of timebound commitments and targets  
|               | Description of forests-related performance standards for direct operations  
|               | Description of forests-related standards for procurement  

GAR_Social_and_Environmental_Policy-2.pdf

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### F4.b
(F4.1b) Do you have commodity specific sustainability policy(ies)? If yes, select the options that best describe their scope and content.

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Do you have a commodity specific sustainability policy?</th>
<th>Scope</th>
<th>Content</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Palm Oil</td>
<td>Yes</td>
<td>Company-wide</td>
<td>Commitment to avoiding deforestation and forest degradation&lt;br&gt;Commitment to protect rights and livelihoods of local communities&lt;br&gt;Commitments beyond regulatory compliance&lt;br&gt;Commitment to transparency&lt;br&gt;Commitment to stakeholder awareness and education&lt;br&gt;Commitment to innovation&lt;br&gt;Recognition of the overall importance of forests and other natural habitats&lt;br&gt;Description of business dependency on forests&lt;br&gt;List of timebound commitments and targets&lt;br&gt;Description of forest-related performance standards for direct operations&lt;br&gt;Description of forest-related standards for procurement&lt;br&gt;Reference to international standards and widely-recognized forest-related initiatives</td>
<td>Please refer to our GAR Social and Environmental Policy (GSEP) for more info <a href="https://goldenagri.com.sg/wp-content/uploads/2016/01/GSEP-English.pdf">https://goldenagri.com.sg/wp-content/uploads/2016/01/GSEP-English.pdf</a></td>
</tr>
<tr>
<td>Cattle Products</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Soy</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Other - Rubber</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Other</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

GAR_Social_and_Environmental_Policy-2.pdf

F4.2

(F4.2) Is there board-level oversight of forests-related issues within your organization?

Yes

F4.2a
(F4.2a) Identify the position(s) of the individual(s) on the board with responsibility for forests-related issues.

<table>
<thead>
<tr>
<th>Position of individual</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board/Executive board</td>
<td>The Board and Senior Management are fully involved in and supports GAR’s sustainability efforts and commitments under the GSEP and have stated this in the Board of Directors’ Statement. A Sustainability Committee (SC) which is chaired by Ms. Jesslyne Widjaja, Corporate Strategy and Business Development Director, oversees all matters related to responsible palm oil. The SC comprises the senior leadership team from the upstream, downstream, and corporate business units, as well as the Head of the Sustainability and Strategic Stakeholder Engagement Department and other staff members from the department. It reports directly to Mr. Franky O. Widjaja, Chairman and CEO of GAR, and the Board, and meets regularly to oversee the development and implementation of the GSEP and the monitoring of performance across all our business operations.</td>
</tr>
<tr>
<td>Chief Executive Officer (CEO)</td>
<td>The Board and Senior Management are fully involved in and supports GAR’s sustainability efforts and commitments under the GSEP and have stated this in the Board of Directors’ Statement. A Sustainability Committee (SC) which is chaired by Ms. Jesslyne Widjaja, Corporate Strategy and Business Development Director, oversees all matters related to responsible palm oil. The SC comprises the senior leadership team from the upstream, downstream, and corporate business units, as well as the Head of the Sustainability and Strategic Stakeholder Engagement Department and other staff members from the department. It reports directly to Mr. Franky O. Widjaja, Chairman and CEO of GAR, and the Board, and meets regularly to oversee the development and implementation of the GSEP and the monitoring of performance across all our business operations.</td>
</tr>
</tbody>
</table>

(F4.2b) Provide further details on the board’s oversight of forests-related issues.

<table>
<thead>
<tr>
<th>Frequency that forests-related issues are a scheduled agenda item</th>
<th>Governance mechanisms into which forests-related issues are integrated</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row 1: Scheduled - some meetings</td>
<td>Monitoring implementation and performance</td>
<td>The Board and Senior Management are fully involved in and supports GAR’s sustainability efforts and commitments under the GSEP and have stated this in the Board of Directors’ Statement.</td>
</tr>
<tr>
<td></td>
<td>Overseeing acquisitions and divestiture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Overseeing major capital expenditures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Providing employee incentives</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reviewing and guiding annual budgets</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reviewing and guiding business plans</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reviewing and guiding corporate responsibility strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reviewing and guiding major plans of action</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reviewing and guiding risk management policies</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reviewing and guiding strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Reviewing innovation / R&amp;D priorities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Setting performance objectives</td>
<td></td>
</tr>
</tbody>
</table>
Below board level, provide the highest-level management position(s) or committee(s) with responsibility for forests-related issues.

<table>
<thead>
<tr>
<th>Name of the position(s) and/or committee(s)</th>
<th>Responsibility</th>
<th>Frequency of reporting to the board on forests-related issues</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sustainably committee</td>
<td>Both assessing and managing forests-related risks and opportunities</td>
<td>Quarterly</td>
<td>A Sustainability Committee (SC) which is chaired by Ms. Jesslyne Widjaja, Corporate Strategy and Business Development Director, oversees all matters related to responsible palm oil. The SC comprises the senior leadership team from the upstream, downstream, and corporate business units, as well as the Head of the Sustainability and Strategic Stakeholder Engagement Department and other staff members from the department. It reports directly to Mr. Franky O. Widjaja, Chairman and CEO of GAR, and the Board, and meets regularly to oversee the development and implementation of the GSEP and the monitoring of performance across all our business operations. Aside from these meetings, urgent and developing issues are escalated to relevant SC members for their input and decisions.</td>
</tr>
</tbody>
</table>

**F4.4**

*(F4.4) Do you provide incentives to C-suite employees or board members for the management of forests-related issues?*  
Yes

**F4.4a**

*(F4.4a) What incentives are provided to C-Suite employees or board members for the management of forests-related issues?*

<table>
<thead>
<tr>
<th></th>
<th>Who is entitled to benefit from these incentives?</th>
<th>Indicator for incentivized performance</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monetary reward</td>
<td>Corporate executive team Chief Sustainability Officer (CSO)</td>
<td>Achievement of commitments and targets Supply chain engagement</td>
<td>All of our C-Suite employees have a Key Performance Indicator (KPI) that is related to sustainability matters including conservation. Work performance is evaluated every year and the result will be related to the monetary bonus that they received for that year.</td>
</tr>
<tr>
<td>Recognition (non-monetary)</td>
<td>No one is entitled to these incentives</td>
<td>Please select</td>
<td></td>
</tr>
<tr>
<td>Other non-monetary reward</td>
<td>No one is entitled to these incentives</td>
<td>Please select</td>
<td></td>
</tr>
</tbody>
</table>

**F5. Business strategy**

**F5.1**
(F5.1) Are forests-related issues integrated into any aspects of your long-term strategic business plan, and if so how?

<table>
<thead>
<tr>
<th>Are forests-related issues integrated?</th>
<th>Long-term time horizon (years)</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, forests-related issues are integrated</td>
<td>5-10</td>
<td>The GAR Social and Environmental Policy (GSEP) serves as the roadmap containing our responsible palm oil commitments including environmental management and forest conservation all of which are integrated into the way we do business. We set our targets based on the GSEP commitments and monitor their progress annually, reporting on progress in our Sustainability Report and through other disclosure platforms.</td>
</tr>
<tr>
<td>Yes, forests-related issues are integrated</td>
<td>5-10</td>
<td>In our GSEP, forest issues are covered under environmental management commitments for: 1.1 No development of and the conservation of High Carbon Stock forests 1.2 No development of and the conservation of High Conservation Value areas 1.3 No development of and the conservation of peatlands of any depth 1.4 No burning for new plantings, replantings or other development 1.5 Continuous yield improvement to reduce pressure on new land development without intensification of the use of chemical pesticides and fertilisers 1.6 Report and reduce greenhouse gas emissions 1.7 Improve waste management 1.8 Improve energy efficiency Based on these long-term objectives, we devise appropriate strategies to achieve them and monitor their progress annually.</td>
</tr>
<tr>
<td>Yes, forests-related issues are integrated</td>
<td>5-10</td>
<td>Activities/initiatives and projects related to the fulfillment of our commitments are always included under annual operational budgets.</td>
</tr>
</tbody>
</table>

F6. Implementation

F6.1

(F6.1) Has your organization made a public commitment to reduce or remove deforestation and/or forest degradation from its direct operations and/or supply chain?
Yes

F6.1a

(F6.1a) Has your organization endorsed any of the following initiatives as part of its public commitment to reduce or remove deforestation and/or forest degradation?
New York Declaration on Forests
Tropical Forest Alliance 2020

F6.1b
(F6.1b) Provide details on your public commitment(s), including the description of specific criteria, coverage, and actions.

**Commodity coverage**

Palm Oil

**Criteria**

- No conversion of natural habitats
- Zero gross deforestation and forest degradation
- Zero net deforestation and forest degradation
- No new development on peatland
- Forest landscape restoration
- Avoidance of negative impacts on threatened and protected species and habitats
- No trade of CITES listed species
- No land clearance by burning or clearcutting
- No conversion of High Conservation Value areas
- No conversion of High Carbon Stock forests
- Adoption of UN Global Compact principles
- Adoption of Free, Prior and Informed Consent (FPIC) principles
- Recognition and endorsement of the Universal Declaration of Human Rights
- Promotion of gender equality and women's empowerment
- Adoption of the UN International Labour Organization principles
- Resolution of complaints and conflicts through an open, transparent and consultative process
- Facilitate the inclusion of smallholders into the supply chain
- No sourcing of illegally produced and/or traded forest risk commodities
- No sourcing of forest risk commodities from unknown/controversial sources
- Restricting the sourcing and/or trade of forest risk commodities to credible certified sources

**Operational coverage**

Direct operations and supply chain

**% of total production/consumption covered by commitment**

100%

**Commitment timeframe**

2020

**Please explain**

Under the GSEP (GAR Social and Environmental Policy), we are committed to achieving the highest standards of quality and integrity, embedding sustainability across all our operations, and empowering society and community. We are fully committed to following the Roundtable on Sustainable Palm Oil (RSPO) Principles and Criteria for the production of sustainable palm oil. We adopt this policy for all upstream and downstream palm oil operations that we own, manage or invest in, regardless of the stake. We also require our third-party suppliers from whom we purchase or with whom we have a trading relationship to comply with the policy. We want to ensure that GAR upstream and downstream palm oil operations are deforestation free, traceable and bring benefits to the people and communities where we operate. Core to this are: 1. Environmental Management; no development of and the conservation of High Carbon Stock (HCS) forests, High Conservation Value (HCV) areas, peatlands of any depth, and no burning for new plantings, re-plantings or other development 2. Social and Community Engagement Respect the Universal Declaration of Human Rights, national laws and ratifies international treaties on human rights and indigenous peoples. 3. Work Environment and Industrial Relations; Recognizing, respecting and strengthening the rights of all our workers 4. Marketplace and Supply Chain; Traceable and transparent supply chain, support to suppliers, due diligence and grievance procedures, compliance with all relevant national laws and international certifications principles and criteria Under our commitments to forest conservation, we have currently set aside some 72,000 hectares of conservation area. We are also working with local communities on joint conservation partnerships to protect HCS forests. We are also physically rehabilitating a peat conservation area in West Kalimantan which was affected by fires in 2015. Furthermore we are working with local communities on long-term fire prevention through training and long-term education to change the community mindset about using fire to clear land. The policy covers all protected biomes/ecoregions in Indonesia such as the Leuser Ecosystem in Aceh and other important biomes/ecoregions wherever we operate or source from.

F6.2

(F6.2) Did you have any quantified targets for increasing sustainable production and/or consumption of your disclosed commodity(ies) that were active during the reporting year?

Yes
(F6.2a) Provide details of your target(s) for increasing sustainable production and/or consumption of the disclosed commodity(ies), and progress made.

Target reference number
Target 1

Forest risk commodity
Palm Oil

Form of commodity covered
All forms of palm oil
Palm oil fruit
Crude palm oil (CPO)
Crude palm kernel oil (CPKO)
Palm kernel meal (PKM)
Refined palm oil
Palm oil derivatives
Palm kernel oil derivatives
Palm biodiesel

Type of target
Third-party certification scheme

Coverage
Direct operations and supply chain

Traceability point
<Not Applicable>

Third-party certification scheme
RSPO producer/grower certification
RSPO Identity Preserved
RSPO Segregated
RSPO Mass Balance
RSPO Next
International Sustainability and Carbon Certification (ISCC)
Other, please specify (Indonesian Sustainable Palm Oil (ISPO))

Start year
2005

Start figure
0%

Target year
2020

Target
100%

% achieved
61-70%

Please explain
To date, 259,464 hectares of plantations including smallholders plantation 51,149 hectares, 29 mills, 9 kernel crushing plants, 6 refineries, 7 bulking stations and 1 oleochemical plant have received RSPO certification. In order to comply with ongoing changes in Indonesian Sustainable Palm Oil regulations regarding the land ownership certification, we are extending the timeframe for completion of RSPO certification for the remaining 10 mills (as at 30 June 2010). Under the current regulatory conditions, we expect to complete the RSPO certification process by 2020. Total units to be certified by 2020 consist of 39 mills and 385,004 hectares of plantations which include 55,021 hectares of plasma plantations (as at 30 June 2010). Palm oil operations established after 30 June 2010 will be part of separate time-bound plan. To date, 291,351 ha of plantations including smallholder plantations of 57,755 ha, 30 mills, 2 kernel crushing plants, 5 refineries and 14 bulking stations have received ISCC certification. The audit was conducted by GUTcert, the German partner of AFNOR Group DQS-UL CFS GmbH, Intertek Certification GmbH, SGS Germany GmbH and Mutu
The objectives of the ISCC are the establishment of an internationally oriented, practical and transparent system for the certification of biomass and bioenergy. ISCC is oriented towards the reduction of greenhouse gas emissions, the sustainable use of land, the protection of natural biospheres and social sustainability. To date, 205,721 ha of plantations and 32 mills have received ISPO certification.

<table>
<thead>
<tr>
<th>Target reference number</th>
<th>Target 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest risk commodity</td>
<td>Palm Oil</td>
</tr>
</tbody>
</table>
| Form of commodity covered | All forms of palm oil
                    | Palm oil fruit
                    | Crude palm oil (CPO)
                    | Crude palm kernel oil (CPKO)
                    | Palm kernel meal (PKM)
                    | Refined palm oil
                    | Palm oil derivatives
                    | Palm kernel oil derivatives
                    | Palm biodiesel |
| Type of target          | Traceability |
| Coverage                | Direct operations and supply chain |
| Traceability point      | Mill |
| Third-party certification scheme | <Not Applicable> |
| Start year              | 2015 |
| Start figure            | 21-30% |
| Target year             | 2018 |
| Target                  | 100% |
| % achieved              | 100% |
| Please explain          | We have achieved 100% Traceability to the Mill since 2015 and continue to maintain this annually. In 2017, we sourced from 427 third-party mills and 44 GAR-owned mills. Our future target will be to continue to maintain full Traceability to the Mill. We completed a significant milestone in 2017 by achieving 100 percent Traceability to the Plantation (TTP) for all GAR-owned mills. This is a continuation of the mapping of our suppliers which began with the achievement of 100 percent Traceability to the Mill in 2015. Future targets include 100% Traceability to the Plantation for third-party mills by 2020. Updated traceability information can be found on the GAR Sustainability Dashboard: https://goldenagri.com.sg/sustainability-dashboard/ |

<table>
<thead>
<tr>
<th>Target reference number</th>
<th>Target 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forest risk commodity</td>
<td>Palm Oil</td>
</tr>
</tbody>
</table>
| Form of commodity covered | All forms of palm oil
                    | Palm oil fruit
                    | Crude palm oil (CPO)
                    | Crude palm kernel oil (CPKO) |
Palm kernel meal (PKM)
Refined palm oil
Palm oil derivatives
Palm kernel oil derivatives
Palm biodiesel

**Type of target**
Traceability

**Coverage**
Direct operations and supply chain

**Traceability point**
Plantation

**Third-party certification scheme**
<Not Applicable>

**Start year**
2015

**Start figure**
11-20%

**Target year**
2020

**Target**
100%

**% achieved**
41-50%

**Please explain**
We completed a significant milestone in 2017 by achieving 100 percent Traceability to the Plantation (TTP) for all GAR-owned mills. This is a continuation of the mapping of our suppliers which began with the achievement of 100 percent Traceability to the Mill in 2015. Through our traceability efforts with GAR-owned mills we were able to map over 70 brokers and 11,000 independent smallholders. As of Q2 2018, 41% of GAR palm supply chain is fully traceable - this includes full TTP for all GAR-owned mills and some third-party supplier mills. The future target is to achieve full Traceability to the Plantation for third-party suppliers by end 2020. Updated traceability information can be found on the GAR Sustainability Dashboard: https://goldenagri.com.sg/sustainability-dashboard/

### F6.3

(F6.3) Do you have traceability system(s) in place to track and monitor the origin of your disclosed commodity(ies)?

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Do you have system(s) in place?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Palm Oil</td>
<td>Yes</td>
</tr>
<tr>
<td>Cattle products</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Soy</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Other - Rubber</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Other</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>

### F6.3a
(F6.3a) Provide details on the level of traceability your organization has for your disclosed commodity(ies).

<table>
<thead>
<tr>
<th>Commodity</th>
<th>% of total production/consumption volume traceable</th>
<th>Point to which commodity is traceable</th>
<th>Description of traceability system</th>
<th>Exclusions</th>
<th>Description of exclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Palm Oil</td>
<td>41-50%</td>
<td>Plantation</td>
<td>Our traceability system includes physical mapping, verification of GPS coordinates, verification of legal name, verification of certification status. We are partnering with technical experts and traceability software providers to achieve this. We achieved 100% Traceability to the Mill in 2015 and 100% Traceability to the Plantation for all GAR-owned mills in 2017. We are now working with our third-party suppliers to help them achieve 100% TTP by end-2020. We conduct site visits to our third party supplying mills. These site visits allow us to understand our suppliers better and to identify critical areas where they need help and support as they seek to adopt and apply sustainable practices.</td>
<td>Not applicable</td>
<td></td>
</tr>
<tr>
<td>Cattle products</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soy</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other - Rubber</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(F6.4) Do you specify any third-party certification schemes for your disclosed commodity(ies)? Indicate the volume and percentage of your production and/or consumption covered.

**Forest risk commodity**

**Palm Oil**

Do you specify any certification scheme?

Yes

Third-party certification scheme

- RSPO producer/grower certification
- RSPO Identity Preserved
- RSPO Segregated
- RSPO Mass Balance
- RSPO Next
- International Sustainability and Carbon Certification (ISCC)
- Other, please specify (Indonesian Sustainable Palm Oil (ISPO))

% of total production/consumption volume certified

60

Form of commodity

- Crude palm oil (CPO)
- Crude palm kernel oil (CPKO)

Volume of production/consumption certified

1068933

Metric

Metric tons

Please explain

The total volume of production/consumption is based on volume of RSPO-Certified oil palm products as described in the RSPO Annual Communications of Progress 2017.
Do you specify any sustainable production/procurement standards for your disclosed commodity(ies), other than third-party certification? Indicate the percentage of production/consumption covered and if you monitor supplier compliance with these standards.

**Forest risk commodity**

**Palm Oil**

**Do you specify any sustainability standards?**

Yes

**Type of standard**

Production

**Description of standard**

Our responsible palm production commitments are found in the GAR Social and Environmental Policy. It includes no deforestation, no development on peat, no development on High Conservation Value areas and no burning. This policy applies to all our operations as well as our suppliers and our investments. We implement best agricultural practices and best management practices in our estates, mills, and refineries. We have 48 internal SOPs that cover sustainable palm oil production covering aspects such as health and safety, social and community engagement, environment, grievance handling, etc, that apply to all of our plantations and mills. In addition to these, we also have 7 sustainability SOPs that are in place in our refineries, related to traceability and procurement of CPO from suppliers. We also participate in the Indonesian Ministry of Environment’s national public environmental reporting initiative known as the Programme for Pollution Control, Evaluation and Rating (PROPER). The programme assesses water and air pollution control, hazardous waste management and environmental impact. For our suppliers, we require them to comply with our policies including the GAR Social and Environmental Policy. We have achieved full Traceability to the Mill and are aiming to complete full Traceability to the Plantation for our third-party suppliers by 2020. As of Q2 2018, 41% of our palm supply chain is full traceable to the plantation – making it easier for us to reach out to our suppliers and their suppliers to ensure compliance with our policies. Together with The Forest Trust, we are also assessing supplier levels of compliance with the GSEP and designing appropriate support and intervention strategies to help them strengthen and improve their practices including managing and mitigating forests-related risks. Further information on our support programmes for our suppliers and reports on our supplier assessments can be found on the GAR website and the GAR Sustainability Dashboard:


**% of total commodity volume covered by standard**

100%

**Do you have a system in place to monitor compliance with this standard?**

Yes

**Type(s) of monitoring system**

Geographic Information System (GIS)  
Ground-based monitoring system  
Aerial monitoring system  
Auditing  
Third-party auditing

**% of suppliers in compliance with standards**

<Not Applicable>

**Please explain**

Monitoring activities conducted by GAR (in our own concessions) include: Indirect Monitoring (Remote Sensing) a. In collaboration with MacDonald Detweiller & Associates (MDA) Canada for deforestation monitoring at 18 PTs that are implementing RSPO New Planting Procedure (NPP) Policy b. Internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and Aerial Photos from unmanned aircraft or drone. (This is the part of Aerial Monitoring System) c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other references from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry d. GIS (Geographic Information System) monitoring: our company executes and analyzes participatory mapping from satellite photos Direct Monitoring a. Verification activities at sites every 6 months. This monitoring covers all of our operational areas. (This is the part of ground based monitoring system) We have also commissioned external parties such as the Rainforest Alliance to verify the implementation of our commitments under the GAR Social and Environmental Policy. For their report and our action plan please see: https://goldenagri.com.sg/wp-content/uploads/2017/12/Rainforest-Alliance-releases-evaluation-of-GAR-221217-FINAL.pdf  
https://goldenagri.com.sg/sustainability-dashboard/files/file_docs/2kz4xgar_action_plan_on_rainforest_alliance_evaluation_of_gsep_implementation.pdf For our suppliers, we require them to comply with our policies including the GAR Social and Environmental Policy. We have achieved full Traceability
to the Mill and are aiming to complete full Traceability to the Plantation for our third-party suppliers by 2020. As of Q2 2018, 41% of our palm supply chain is full traceable to the plantation – making it easier for us to reach out to our suppliers and their suppliers to ensure compliance with our policies. Together with The Forest Trust, we are also assessing supplier levels of compliance with the GSEP and designing appropriate support and intervention strategies to help them strengthen and improve their practices including managing and mitigating forests-related risks. Further information on our support programmes for our suppliers and reports on our supplier assessments can be found on the GAR website and the GAR Sustainability Dashboard.

F6.6

(F6.6) Are you working with smallholders to encourage and support best practices that aim to reduce or remove deforestation/forest degradation?

<table>
<thead>
<tr>
<th>Are you working with smallholders?</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber &lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Palm Oil Yes, working with smallholders</td>
<td>At GAR, we have a policy of supporting all (100 percent) of our plasma smallholders. The plasma smallholders also adhere to all our commitments under the GSEP including no deforestation, no burning and no development on peat. While GAR does not own the plasma plantations, they are very closely integrated into our management system and we take the lead in promoting their success and productivity. Through their partnership with us, we provide our plasma smallholders with high-yielding seeds and good quality fertilisers. We also ensure knowledge transfer and capacity building through regular training on Good Agricultural Practices (GAP). We also support independent small farmers through the Innovative Financing Scheme for independent smallholders. The programme aims to encourage more independent small farmers to replant with better quality, higher-yielding seed by giving them access to financing and helping them sustain their livelihoods during the four years it takes for the new seedlings to mature. Higher yields will potentially lessen the need for opening more land for agriculture. Since the scheme began in 2014, GAR has helped independent farmers in Riau and Jambi secure loans of approximately IDR167.5 billion from state-owned banks. As at end 2017, over 730 farmers are participating in the scheme. We also run other finance and support programmes for independent smallholders. Through the Smallholders Development Programme, GAR has provided technical assistance and long tenure interest-free credit to more than 3,800 independent farmers in East Kalimantan since 2013 in an area covering over 7,700 hectares. They also have access to high-yielding seeds, fertiliser, herbicides and heavy equipment rental, at below market rates. To date, we have disbursed more than IDR19 billion in interest-free loans. We are also working with customers in various projects to help small farmers become more sustainable and move toward sustainable palm oil certification.</td>
</tr>
<tr>
<td>Cattle products &lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Soy &lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Other - Rubber &lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Other &lt;Not Applicable&gt;</td>
<td></td>
</tr>
</tbody>
</table>

F6.7
(F6.7) Are you working with your direct suppliers to support and improve their capacity to supply sustainable raw materials?

<table>
<thead>
<tr>
<th>Raw Material</th>
<th>Are you working with direct suppliers?</th>
<th>Supplier engagement approach</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Palm Oil</td>
<td>Yes, working with direct suppliers</td>
<td>Developing or distributing supply chain mapping tool</td>
<td>As a leading player in the palm oil industry, our commitment to responsible palm oil involves not just our company’s operations, it extends to our supply chain. To meet this commitment, we completed another significant milestone in 2017 by achieving 100 percent Traceability to the Plantation (TPP) for all GAR-owned mills. This is a continuation of the mapping of our suppliers which began with the achievement of 100 percent Traceability to the Mill in 2015. Our independent suppliers are also mapping their supply chains and we aim to have them report full TTP by end 2020. TTP means we can guarantee the provenance of our raw materials and is in line with the efforts of our major customers who are also working on full transparency of their palm supply chain. But for us, this achievement has even greater significance because it is a key part of our wider efforts to help our suppliers change for the better. Through deeper engagement, we reduce supply chain risks while helping our industry become more responsible and resilient. In parallel with our mapping efforts, we have been carrying out targeted site visits; monitoring our suppliers as part of risk assessment and management; and assessing their needs to help them upgrade their capacity to implement responsible practices. Our SMART SEED workshops are now an annual event and themes are chosen based on feedback and assessment of suppliers’ most pressing needs. In 2017, we also held a workshop for our suppliers operating near the Leuser Ecosystem to heighten their awareness of the protected status of Leuser, and how to stop sourcing palm oil from growers that may be operating in protected areas. The progress made in this area aligns with UN Sustainable Development Goal (SDG) 12 – Responsible Consumption and Production – as we try to improve the livelihoods of our suppliers especially small farmers while ensuring sustainable production.</td>
</tr>
<tr>
<td>Cattle products</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Soy</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Other - Rubber</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Other</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
</tbody>
</table>
(F6.8) Are you working beyond your first-tier supplier(s) to manage and mitigate forests-related risks?

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Are you working beyond first tier?</th>
<th>Please explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Timber</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Palm Oil</td>
<td>Yes, working beyond first tier</td>
<td>Our targeted site visits which are carried out with our implementation partner, The Forest Trust, to assess suppliers also includes assessments of their suppliers. These assessments help us to determine the best intervention strategies and support for our suppliers to help manage and mitigate forests-related risks. The assessment is based on a series of indicators developed in accordance with the forests-related commitments under the GAR Social and Environmental Policy (GSEP) such as: • No development of and the conservation of High Carbon Stock forests • No development of and the conservation of High Conservation Value areas • No development of and the conservation of peatlands of any depth • No burning for new plantings, replantings or other development. We are also supporting our third-party tier 1 suppliers to report full traceability to the origin (plantation) by end 2020 which will enable us to reach out and share responsible practices with them and their suppliers. Assessment reports of our Tier 1 and Tier 2 Suppliers can be seen on the GAR Sustainability Dashboard: <a href="https://goldenagri.com.sg/sustainability-dashboard/files/file_docs/PB3AKbelawan_refinery_report.pdf">https://goldenagri.com.sg/sustainability-dashboard/files/file_docs/PB3AKbelawan_refinery_report.pdf</a> <a href="https://goldenagri.com.sg/sustainability-dashboard/files/file_docs/OLezQtarahan_report.pdf">https://goldenagri.com.sg/sustainability-dashboard/files/file_docs/OLezQtarahan_report.pdf</a> <a href="https://goldenagri.com.sg/sustainability-dashboard/files/file_docs/d14nSlubuk_gaung_and_dumai_sustainability_overview_report.pdf">https://goldenagri.com.sg/sustainability-dashboard/files/file_docs/d14nSlubuk_gaung_and_dumai_sustainability_overview_report.pdf</a></td>
</tr>
<tr>
<td>Cattle products</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Soy</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Other - Rubber</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>&lt;Not Applicable&gt;</td>
<td></td>
</tr>
</tbody>
</table>

(F6.9) Do you participate in external initiatives or activities to further the implementation of your policies concerning the sustainability of your disclosed commodity(ies)?

Forest risk commodity
Palm Oil

Do you participate in activities/initiatives?
Yes

Activities
Involved in multi-partnership or stakeholder initiatives

Initiatives
UN Global Compact
Tropical Forest Alliance 2020 (TFA)
Roundtable on Sustainable Palm Oil (RSPO)
High Carbon Stock Approach Steering Group
International Sustainability & Carbon Certification (ISCC)
Other, please specify (Indonesia Sustainable Palm Oil (ISPO))

Please explain
UNGC: GAR has subscribed to the UN Global Compact principles since 2006 when its subsidiary SMART, became a signatory. In 2018, GAR became a signatory of the UNGC, underlining its continuing support of the UNGC principles and the UN SDGs. Tropical Forest Alliance: TFA 2020) is a global public-private partnership in which partners take voluntary actions, individually and in combination, to reduce the tropical deforestation associated with the sourcing of commodities such as palm oil, soy, beef, and paper and pulp. RSPO: GAR's subsidiary, SMART became a member of the RSPO in 2005 shortly after RSPO was founded. GAR became a member in 2011. To date, over 259,000 hectares of plantations including over 51,000 hectares of smallholder estates, 29 mills, nine kernel crushing plants, six refineries, seven bulking stations, and one oleochemicals plant have received RSPO certification. GAR is active on various working groups and is also on the Board of Governors. High Carbon Stock Approach Steering Group: The HCS Approach pioneered by GAR in partnership with The Forest Trust (TFT) and Greenpeace, as part of our original Forest Conservation Policy in 2011, was developed to provide land managers with a practical land use planning tool. The policy is now embedded in our enhanced GAR Social and Environmental Policy (GSEP). The HCS Approach provides a methodology and toolkit to help land managers define forest types and make decisions about what land can be developed and what should be conserved. GAR has rolled out the HCS approach in all its concessions and is encouraging its suppliers to do so.
ISCC: GAR maintains ISCC certification, a global leading certification which aims to ensure environmentally, socially and economically sustainable production and use of all kinds of biomass in global supply chains. To date, over 291,000 hectares of plantations including smallholder plantations of over 57,700 hectares, 30 mills, two kernel crushing plants, five refineries and 14 bulking stations have received ISCC certification. ISPO: GAR supports the ISPO Scheme developed by the Indonesian Ministry of Agriculture to improve the competitiveness of Indonesian palm oil in world markets and to meet Indonesia’s commitment to reduce greenhouse gases and focus on environmental issues. To date, over 205,700 hectares of plantations and 32 mills have received ISPO certification.

<table>
<thead>
<tr>
<th>Forest risk commodity</th>
<th>Palm Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you participate in activities/initiatives?</td>
<td>Yes</td>
</tr>
<tr>
<td>Activities</td>
<td>Engaging with non-governmental organizations</td>
</tr>
<tr>
<td>Initiatives</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Please explain</td>
<td>The High Carbon Stock (HCS) Approach pioneered by Golden Agri-Resources (GAR) in partnership with The Forest Trust (TFT) and Greenpeace, as part of our original Forest Conservation Policy in 2011, was developed to provide land managers with a practical land use planning tool. The policy is now embedded in our enhanced GAR Social and Environmental Policy (GSEP). The HCS Approach provides a methodology and toolkit to help land managers define forest types and make decisions about what land can be developed and what should be conserved. It aims to balance ecological and environmental values with the customary rights of indigenous peoples and benefits to local communities. GAR has rolled out the HCS approach across all its concessions and is encouraging its suppliers to adopt the approach.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Forest risk commodity</th>
<th>Palm Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Do you participate in activities/initiatives?</td>
<td>Yes</td>
</tr>
<tr>
<td>Activities</td>
<td>Engaging with communities</td>
</tr>
<tr>
<td>Initiatives</td>
<td>&lt;Not Applicable&gt;</td>
</tr>
<tr>
<td>Please explain</td>
<td>We are rolling out community conservation partnerships with local communities. To date we have secured agreements from over 10 villages to protect over 7000 hectares of High Carbon Stock Forests. We plan to roll out these community conservation partnership models throughout all our concessions. We are also expanding our long-term fire prevention collaboration community programmes. As of 2018, the programme to help prevent forest fires through training, education and active assessment and monitoring has been rolled out to 32 villages in Indonesia. See <a href="https://goldenagri.com.sg/wp-content/uploads/2018/06/GAR_SR_2017.pdf">https://goldenagri.com.sg/wp-content/uploads/2018/06/GAR_SR_2017.pdf</a> p 58-59</td>
</tr>
</tbody>
</table>

F7. Linkages and trade-offs

F7.1

(F7.1) Has your organization identified any linkages or trade-offs between forests and other environmental issues in its direct operations and/or other parts of its value chain? Yes
(F7.1a) Describe the linkages or trade-offs and the related management policy or action.

**Linkage/tradeoff**

**Linkage**

**Type of linkage/tradeoff**

Decreased GHGs emissions

**Description of linkage/tradeoff**

Our company aims to create positive impacts while minimising negative impacts on the environment and we aim to do as much as possible within our capacity as a private company and within our concessions. Under the GSEP, we commit to conserve HCS and HCV forests, protect and manage peatlands, and prohibit burning for new planting, replanting, or other development in our concessions. These commitments aim to preserve biodiversity in the forests and peatlands, and protect the ecosystem to avoid flooding and secure water supply. By conserving forest, peatland, and prohibiting burning, we also avoid releasing huge amounts of GHGs into the atmosphere. We have also committed to reduce operational GHG emissions which have an impact on climate change.

**Policy or action**

Under the GSEP, we commit to conserve HCS forests and HCV areas, protect and manage peatlands, and prohibit burning for new planting, replanting, and other development. This policy is integrated into our business operations. Our successful conservation of HCS forests has a positive environmental impact in terms of decreasing GHG emissions, since HCS forests retain large stores of carbon. We have rolled out mapping in over 80 villages across our concessions to date, and secured agreement with local communities in 13 villages to set aside over 7,700 hectares of HCS forests for conservation. This is in addition to the 72,000 hectares of conservation area in our concessions consisting of HCS and HCV areas. We are also rehabilitating 2600 hectares of degraded peatland in the PT Agro Lestari Mandiri (AMNL) concession in West Kalimantan. To date, we have progressed with replanting over 100 hectares of the buffer zone as well as the rewetting of the entire peat area. This peatland rehabilitation also helps us to avoid our GHG emissions since peatland retains large stores of carbon. Moreover, successful implementation of our Zero Burning Policy has resulted in virtually zero fire incidents on our concessions in the reporting year. And our fire-free programme with local communities Desa Makmur Peduli Api (DMPA) has been successful in reducing firespots and hotspots since launch in 2016. We have expanded the fire-free programme in Riau and Central Kalimantan.

**Linkage/tradeoff**

**Linkage**

**Type of linkage/tradeoff**

Disaster risk reduction

**Description of linkage/tradeoff**

Disaster risks identified include forest fires and flood. Under the GSEP we commit to take several actions that will decrease the risk of forest fires and flood, which are conserving HCS forests, conserve and protect riparian zones, protect and manage peatlands, as well as prohibit burning for new planting, replanting, and other development. By minimising the risk of disasters, we also minimise risks to our business as forest fires and flood will disrupt our production capabilities.

**Policy or action**

Under GAR Social and Environmental Policy, we commit to conserve High Carbon Stock (HCS) forests, conserve and protect riparian zones, protect and manage peatlands, as well as prohibit burning for new planting, replanting, and other development. To date, we have rolled out HCS mapping in over 80 villages across our concessions, and secured agreement with local communities in 13 villages to set aside over 7,700 hectares of HCS forests for conservation. This is in addition to the 72,000 hectares of conservation area in our concessions consisting of HCS forests and HCV areas. In terms of riparian zones which are important due to its function to providing specific wildlife habitats and playing a key role in water systems, we rehabilitate over 1,400 hectares of riparian buffer zones in our 18 concessions. We also rehabilitate 2600 hectares of degraded peatland in the PT Agro Lestari Mandiri (AMNL) concession in West Kalimantan. To date, we have progressed with replanting over 100 hectares of the buffer zone as well as the rewetting of the entire peat area. Furthermore, in 2017 we had virtually zero fires in our area due to strict adherence to our Zero Burning Policy. Meanwhile, we continued our long-term community collaboration on fire prevention with 17 local villages in 2017, through the Desa Makmur Peduli Api (DMPA) programme in Ketapang, Kalimantan and Jambi, Sumatra. The DMPA programme has generally helped to reduce hotspots and firespots since it was launched in 2016.

**Linkage/tradeoff**

**Linkage**

**Type of linkage/tradeoff**

Increased carbon sequestration

**Description of linkage/tradeoff**

Our company aims to create positive impacts while minimising negative impacts on the environment and we aim to do as much as possible within our capacity as a private company and within our concessions. Under GSEP, we commit to conserve HCS and HCV forests, protect and manage peatlands, and prohibit burning for new planting, replanting, or other development in our concessions. These commitments aim to preserve biodiversity in the forests and peatlands, and protect the ecosystem to avoid flooding and secure water supply. By conserving forest, peatland, and prohibiting burning, we also avoid releasing huge amounts of GHGs into the atmosphere. We have also committed to reduce operational GHG emissions which have an impact on climate change.
forests, as well as protect and manage peatlands. These commitments aim to preserve biodiversity and protect the ecosystem to avoid flooding and secure water supply. Moreover, conserving forest and peatland also increases the carbon sequestration since they retain large stores of carbon. Furthermore, increasing carbon emissions leads to climate change which affects the precipitation pattern and will eventually create extreme weather events (like prolonged drought) and forest fires. Therefore, by increasing the carbon sequestration, we also avoid these negative environmental impacts.

Policy or action
Under GAR Social and Environmental Policy, we commit to conserve High Carbon Stock (HCS) forests and High Conservation Value (HCV) areas, as well as protect and manage peatlands. This policy is integrated into our business operations. Our successful conservation of HCS and HCV areas has a positive environmental impact in terms of increasing carbon sequestration, since forests retain large stores of carbon. We have rolled out mapping in over 80 villages across our concessions to date, and secured agreement with local communities in 13 villages to set aside over 7,700 hectares of HCS forests for conservation. This is in addition to the 72,000 hectares of conservation area in our concessions consisting of HCS and HCV areas. Furthermore, GAR also maintains 1,400 hectares of HCV area in Sungai Rungau, Central Kalimantan as an orangutan sanctuary. We also rehabilitate 2600 hectares of degraded peatland in the PT Agro Lestari Mandiri (AMNL) concession in West Kalimantan. To date, we have progressed with replanting over 100 hectares of the buffer zone as well as the rewetting of the entire peat area. This peatland rehabilitation also helps us to decrease our GHG emissions since peatland retains large stores of carbon.

Linkage/tradeoff

<table>
<thead>
<tr>
<th>Type of linkage/tradeoff</th>
<th>Description of linkage/tradeoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved water supply</td>
<td>Our company aims to create positive impacts while minimising negative impacts on the environment and we aim to do as much as possible within our capacity as a private company and within our concessions. Under GSEP, we commit to conserve and protect riparian zones, HCS, and HCV area. These commitments create positive impacts such as preserving biodiversity, decreasing GHG emissions, mitigating climate change, and minimising the risk of forest fires and flood. Furthermore, since riparian zones plays a key role in water systems and forest helps maintain fresh water supply, this commitment also creates a positive impact in terms of improving water supply. And since water is an essential resource for our business, improving water supply also minimises the risk of disruption to our operations and product supply.</td>
</tr>
</tbody>
</table>

Policy or action
Under GAR Social and Environmental Policy, we commit to conserve HCS forests and HCV areas, as well as conserve and protect riparian zones. To date, we have rolled out HCS mapping in over 80 villages across our concessions, and secured agreement with local communities in 13 villages to set aside over 7,700 hectares of HCS forests for conservation. This is in addition to the 72,000 hectares of conservation area in our concessions consisting of HCS and HCV areas. In terms of riparian zones which are important due to its function to providing specific wildlife habitats and playing a key role in water systems, we rehabilitate over 1,400 hectares of riparian buffer zones in our 18 concessions.

Linkage/tradeoff

<table>
<thead>
<tr>
<th>Type of linkage/tradeoff</th>
<th>Description of linkage/tradeoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil conservation</td>
<td>Our company aims to create positive impacts while minimising negative impacts on the environment and we aim to do as much as possible within our capacity as a private company and within our concessions. Under GSEP, we commit to protect and manage peatlands. By doing this, not only did we preserve biodiversity in the peatlands, protect the ecosystem in order to avoid flooding and secure water supply, and minimise the risk of forest fire, but we also do soil conservation.</td>
</tr>
</tbody>
</table>

Policy or action
Under GAR Social and Environmental Policy, we commit to protect and manage peatlands, and this policy is integrated into our business operations. We rehabilitate 2600 hectares of degraded peatland in the PT Agro Lestari Mandiri (AMNL) concession in West Kalimantan. To date, we have progressed with replanting over 100 hectares of the buffer zone as well as the rewetting of the entire peat area.

Linkage/tradeoff

<table>
<thead>
<tr>
<th>Type of linkage/tradeoff</th>
<th>Description of linkage/tradeoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased water quality</td>
<td></td>
</tr>
</tbody>
</table>
Our company aims to create positive impacts while minimising negative impacts on the environment and we aim to do as much as possible within our capacity as a private company and within our concessions. Under GSEP, we implement our commitment to conserve and protect riparian zones, peatlands, as well as HCS and HCV forests. These commitments help us to increase the water quality in the area. This is due to the function of riparian zones, peatlands, and forest to maintain the ecosystem stability which is related with the quality of ground water and surface water.

We have rehabilitated over 1,400 hectares of riparian buffer zones in our 18 concessions, and we plan to continue doing so. Moreover, in terms of conserving peatlands, we have rehabilitated 2600 hectares of degraded peatland in the PT Agro Lestari Mandiri (AMNL) concession in West Kalimantan. To date, we have progressed with replanting over 100 hectares of the buffer zone as well as the rewetting of the entire peat area. While in terms of conserving forest, To date, we have rolled out HCS mapping in over 80 villages across our concessions, and secured agreement with local communities in 13 villages to set aside over 7,700 hectares of HCS forests for conservation. This is in addition to the 72,000 hectares of conservation area in our concessions consisting of HCS forests and HCV areas.

We have rehabilitated over 1,400 hectares of riparian buffer zones in our 18 concessions, and we plan to continue doing so. Moreover, in terms of conserving peatlands, we have rehabilitated 2600 hectares of degraded peatland in the PT Agro Lestari Mandiri (AMNL) concession in West Kalimantan. To date, we have progressed with replanting over 100 hectares of the buffer zone as well as the rewetting of the entire peat area. While in terms of conserving forest, To date, we have rolled out HCS mapping in over 80 villages across our concessions, and secured agreement with local communities in 13 villages to set aside over 7,700 hectares of HCS forests for conservation. This is in addition to the 72,000 hectares of conservation area in our concessions consisting of HCS forests and HCV areas.

F8. Verification

F8.1

(F8.1) Do you verify any forests information reported in your CDP disclosure?
Yes

(F8.1a) Which data points within your CDP disclosure have been verified, and which standards were used?

**Disclosure module**
F1. Current State

**Data points verified**
Conservation area in our plantation

**Verification standard**
High Carbon Stock Approach and High Conservation Value

Please explain
We have worked with stakeholders like Greenpeace to develop new guidelines and standards such as the High Carbon Stock Approach (HCSA) to address deforestation concerns. This approach is increasingly being adopted not only in our industry but also in other sectors such as forestry. We have rolled out the HCS approach in all our concessions. This includes HCS assessments by third parties to identify conservation areas. We also conduct HCV assessments. These are mostly carried out by third-party assessors and HCV reports after 2015 are submitted for HCV Resource Network approval.

Disclosure module
F5. Strategy

Data points verified
Verification of implementation of GSEP

Verification standard
Verified by RA (Rainforest Alliance)

Please explain
In 2016, GAR approached the Rainforest Alliance to conduct an objective evaluation of the implementation of the GSEP which was launched in 2015, and built on previous sustainability policies. Three concessions in West Kalimantan were picked as evaluation sites – PT. Kartika Prima Cipta (KPC), PT. Paramitra Internusa Pratama (PIP) and PT. Persada Graha Mandiri (PGM). The concessions were chosen because they are the areas where GAR has trialled and delivered the most work related to its GSEP since the policy was implemented. The evaluation was conducted using established, independent auditing procedures, including evidence submissions by GAR and other stakeholders, field visits and stakeholder consultations with affected communities, individuals and organisations. Across the 17 mills, 18 estates and 12 smallholders assessed, all faced challenges in fulfilling most of the principles set forth in the GSEP due to: • GAR has developed a series of Standard Operating Procedures (SOPs) and concession managers are consistently working to implement them • GAR has halted forest clearance; is working with affected communities both inside and outside the concessions to control fires; carried out High Conservation Value (HCV) and High Carbon Stock (HCS) assessments; and conserved both HCVs and HCS in the three concessions • GAR has identified social conflicts and is using existing SOPs and related processes for achieving resolution. Continuous improvement in FPIC implementation is critical • GAR has created a functioning supply chain traceability approach

Disclosure module
F6. Implementation

Data points verified
GHG (Greenhouse Gas) Emission

Verification standard
 Verification by EY

Please explain
Successful conservation of HCS forests is one of the ways in which we retain large stores of carbon and help avoid GHG emissions. In addition, we have also carried out a baseline study of our Scope 1 GHG emissions including measurements of carbon dioxide, methane and nitrous oxide in our mills and plantations, and are in the midst of designing an emission reduction strategy. The main sources of GHG emissions at the mill comes from Palm Oil Mill Effluent (POME), and the usage of diesel as fuel and for power production. GHG emissions from the plantation come from the usage of fertilisers, diesel and land use change. We have commissioned EY to review and verify how we calculate our carbon footprint, identify viable opportunities to reduce emissions and set short, medium and long-term reduction targets for the business.

Disclosure module
F6. Implementation

Data points verified
Certification

Verification standard
RSPO, ISPO, ISCC

Please explain
RSPO: Our Indonesian operations were early adopters of certification of sustainably produced palm oil – SMART became a member of the RSPO in 2005 shortly after RSPO was founded. To date, over 259,000 hectares of plantations including over 51,000 hectares of smallholder estates, 29 mills, 9 kernel crushing plants, six refineries, seven bulking stations, and one oleochemicals plant have received RSPO certification. We have extended the time frame for completion of RSPO certification until 2020 for the remaining operations which include over 213,000 hectares of plantations, and encompasses over 49,000 hectares of plasma...
estates and 16 mills. ISPO; GAR also supports the ISPO Scheme developed by the Indonesian Ministry of Agriculture to improve the competitiveness of Indonesian palm oil in world markets and to meet Indonesia’s commitment to reduce greenhouse gases and focus on environmental issues. To date, over 205,700 hectares of plantations and 32 mills have received ISPO certification. ISCC; GAR maintains ISCC certification, a global leading certification which aims to ensure environmentally, socially and economically sustainable production and use of all kinds of biomass in global supply chains. ISCC is based on the implementation of the highest sustainability requirements in ecological sustainability, social sustainability, compliance with laws and international treaties, monitoring of GHG emissions and good management practices. To date, over 291,000 hectares of plantations including smallholder plantations of over 57,700 hectares, 30 mills, two er plantations of over 57,700 hectares, 30 mills, two kernel crushing plants, five refineries and 14 bulking stations have received ISCC certification. The audit was conducted by GUTcert, the German partner of AFNOR Group DQS-UL CFS GmbM, Intertek Certification GmbH, SGS Germany GmbH and Mutu Certification International.

Disclosure module
F6. Implementation

Data points verified
Reporting

Verification standard
GRI Standards

Please explain
We report in accordance with the Global Reporting Initiative’s (GRI) Standards Sustainability Reporting Guidelines at the Core level. The GRI Standards framework sets out the principles and standard disclosures that organisations can use to report their economic, environmental, and social performance and impacts. Our GRI Index has been checked by our external consultants, Corporate Citizenship.

F9. Barriers and challenges

F9.1

(F9.1) Describe the key barriers or challenges to avoiding forests-related risks in your direct operations or in other parts of your value chain.

Forest risk commodity
Palm Oil

Coverage
Direct operations
Supply chain

Primary barrier/challenge type
Other, please specify (Regulatory support )

Comment
Currently under national regulations, there are no provisions to conserve/protect HCS or HCV areas within our concessions, therefore leaving room for deforestation by external parties (non-GAR) with no legal implications.

Forest risk commodity
Palm Oil

Coverage
Direct operations
Supply chain

Primary barrier/challenge type
Other, please specify (Competing stakeholder interests)

Comment
There may be competing interests for example when a community has customary rights to a forest area which has been identified for conservation. We take a multi-stakeholder approach in finding sustainable solutions such as through Participatory Conservation Planning, which can be time-consuming and challenging since different stakeholders have different interests and concerns. In the
case where opposing views exist, we work hard to find balance in a solution that would be acceptable to all stakeholders.

<table>
<thead>
<tr>
<th>Forest risk commodity</th>
<th>Palm Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coverage</strong></td>
<td>Supply chain</td>
</tr>
<tr>
<td><strong>Primary barrier/challenge type</strong></td>
<td>Supply chain complexity</td>
</tr>
<tr>
<td><strong>Comment</strong></td>
<td>The Indonesian palm oil industry is highly fragmented with over 2 million smallholders managing 44% of all palm oil estates. This means we have to engage with hundreds of suppliers and thousands of smallholders. Complete and continuous engagement with provision of support to all of them requires time and effort. Smallholders also face challenges in complying with the GSEP as they have limited resources and skills and would need more intensive engagement and support.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Forest risk commodity</th>
<th>Palm Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coverage</strong></td>
<td>Supply chain</td>
</tr>
<tr>
<td><strong>Primary barrier/challenge type</strong></td>
<td>Cost of sustainably produced/certified products</td>
</tr>
<tr>
<td><strong>Comment</strong></td>
<td>Undergoing certification for sustainably produced palm oil requires a lot of resources which may be beyond the reach of smaller companies and small farmers. There is no clear incentive for smaller entities to undergo certification as consumers in general have not shown willingness to pay a premium for sustainable palm oil.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Forest risk commodity</th>
<th>Palm Oil</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coverage</strong></td>
<td>Supply chain</td>
</tr>
<tr>
<td><strong>Primary barrier/challenge type</strong></td>
<td>Limited public awareness and/or market demand</td>
</tr>
<tr>
<td><strong>Comment</strong></td>
<td>There is difficulty convincing the entire supply chain to undergo costly certification processes and audits as consumers have not shown a willingness to pay more for sustainable palm oil.</td>
</tr>
</tbody>
</table>

F9.2
(F9.2) Describe the main measures that would improve your organization’s ability to manage forests-related risks.

**Forest risk commodity**
- Palm Oil

**Coverage**
- Direct operations
- Supply chain

**Main measure**
- Other, please specify (All of the options above)

**Comment**
We tackle the challenges through a multi-pronged approach:

- **Participatory Mapping and Participatory Conservation Planning**
  - GAR has worked closely with our partners to develop the process for Participatory Mapping. The process respects the right to Free, Prior and Informed Consent (FPIC) of communities involved in development and conservation, in compliance with the RSPO Principles and Criteria. Communities will identify the areas to which they have customary rights to and which are important to their livelihoods, cultural needs or ecosystem service provision. These areas will be separated and excluded from plantation development and our High Carbon Stock patch selection process. Building on this process, we continue the dialogue with the community through Participatory Conservation Planning and based on community agreement, we jointly conserve the HCS areas that have been identified and agreed upon.
- **Engagement with suppliers and smallholders**
  - Our suppliers have to comply with our commitments under the GSEP especially with regards to no deforestation. We engage continuously with suppliers to understand the challenges they face, share what we have learned in the management of our own plantations and help them implement responsible practices in line with the GSEP. We do this through site visits, special workshops and training sessions. We have also set up a dedicated Supplier Support Team to offer continuous support to our suppliers.
- **Working with multiple stakeholders on joint projects**
  - We are engaging with interested customers and financial institutions to carry out joint projects to support smallholder development and boost their capacity to adopt responsible practices as well as helping them gain certification. This helps the industry and related stakeholders build models of cooperation to tackle industry-wide issues and encourages more companies to adopt responsible practices. We are also active in the Roundtable on Sustainable Palm Oil and work together with stakeholders to encourage the use of sustainable palm oil.

F10. Signoff

F-FI

(F-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

F10.1

(F10.1) Provide the following information for the person that has signed off (approved) your CDP forests response.

<table>
<thead>
<tr>
<th>Job Title</th>
<th>Corresponding job category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managing Director, Sustainability and Strategic Stakeholder Engagement</td>
<td>Chief Sustainability Officer (CSO)</td>
</tr>
</tbody>
</table>

SF. Supply chain module

SF0.1
(SF0.1) What is your organization's annual revenue for the reporting period?

<table>
<thead>
<tr>
<th>Row</th>
<th>Annual revenue</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>7507599</td>
</tr>
</tbody>
</table>

SF0.2

(SF0.2) Do you have an ISIN for your organization that you are willing to share with CDP?
No

SF1.1

(SF1.1) On F6.4 you were asked “Do you specify any third-party certification schemes for your disclosed commodity(ies)? Indicate the volume and percentage of your production and/or consumption covered”. Can you also indicate, for each of your disclosed commodity(ies), the percentage of certified volume sold to each requesting CDP supply chain member?
Yes

SF1.1a

(SF1.1a) For each of your requesting CDP supply chain members, indicate the percentage of certified volume sold per disclosed commodity(ies).

<table>
<thead>
<tr>
<th>Requesting member</th>
<th>Forest risk commodity</th>
<th>Form of commodity</th>
<th>Third-party certification scheme</th>
<th>Total volume of commodity sold to member</th>
<th>Metric</th>
<th>Metric tons</th>
<th>What % of the volume reported in column 5 is certified?</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>KAO Corporation</td>
<td>Palm Oil</td>
<td>Crude palm oil (CPO)</td>
<td>Other, please specify (No certification)</td>
<td>2326.67</td>
<td>Metric</td>
<td>Metric tons</td>
<td>&lt;10%</td>
<td>Total volume stated above is for the products that we sell to PT KAO Indonesia and PT KAO Indonesia Chemicals. The products that PT KAO Indonesia bought from us are standard products, not certified products.</td>
</tr>
</tbody>
</table>

SF2.1
Please propose any mutually beneficial forests-related projects you could collaborate on with specific CDP supply chain members.

**Requesting member**
KAO Corporation

**Commodity related to the project**
Palm oil

**Category of project**
Certification

**Type of project**
Increase in coverage of commodity certified

**Estimated timeframe for realization of benefits to customer**
1-3 years

**Details of project**
Sustainability certification has become the norm in palm oil industry since demand for certified palm oil keeps increasing. By certifying our products, we ensure that the products sold to our customers are sustainable. Therefore, we think that this is the best strategy that is mutually beneficial for our company and customers.

**Projected outcome**
By increasing the coverage of certification for palm oil, it will guarantee the sustainability of our products and generate higher income due to premium prices and enhanced productivity.

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**Requesting member**
KAO Corporation

**Commodity related to the project**
Palm oil

**Category of project**
Traceability and transparency

**Type of project**
New traceability system

**Estimated timeframe for realization of benefits to customer**
1-3 years

**Details of project**
We have achieved 100% Traceability to the Mill since 2015 and continue to maintain this. In 2017, we sourced from 427 third-party supplier mills and 44 GAR-owned mills. At the end of 2017, we also achieved 100% Traceability to the Plantation (TTP) for all GAR-owned mills. We are now working with our third-party supplier mills to have them report full Traceability to the Plantation by 2020. As of Q2 2018, 41% of our total palm supply chain was fully traceable to the plantation, with 50 third-party supplier mills taking part in TTP and 16 reporting full TTP. Traceability enables us to guarantee the provenance of our raw materials to our customers, and gives us visibility over our supply chain.

**Projected outcome**
Traceability enables us to guarantee the provenance of our raw materials to our customers, and gives us visibility over our supply chain. It helps us mitigate, manage and minimize risk in our supply chain and to our customers. We are using the mapping information to establish deeper trust with our suppliers which enables us to help them improve and strengthen their sustainability practices and achieve compliance with the GAR Social and Environmental Policy.

---

(SF2.2) Have requests or initiatives by CDP supply chain members prompted your organization to take organizational-level action to reduce or remove deforestation/forest degradation from your operations or your supply chain?

No
Submit your response

In which language are you submitting your response?
English

Please confirm how your response should be handled by CDP

<table>
<thead>
<tr>
<th>I am submitting my response</th>
<th>Public or Non-Public Submission</th>
<th>I am submitting to</th>
<th>Are you ready to submit the additional Supply Chain Questions?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-public</td>
<td></td>
<td>Investors</td>
<td>Yes, submit Supply Chain Questions now</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customers</td>
<td></td>
</tr>
</tbody>
</table>

Please confirm below
I have read and accept the applicable Terms