

Welcome to your CDP Forests Questionnaire 2019

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.

	Start Date	End Date
Reporting year	January 1, 2018	December 31, 2018

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.

	Stage of the value chain
Timber	
Palm Oil	Production

	Processing Trading Manufacturing Retailing
Cattle Products	
Soy	
Other - Rubber	
Other	

F0.5

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

	Produce/use/sell	Disclosing
Timber	No	
Palm Oil	Yes	Yes
Cattle Products	No	
Soy	No	
Other - Rubber	No	
Other	No	

F0.6

(F0.6) Are there any parts of your direct operations not included in your disclosure?

No

F0.7

(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). 73% of FFB is produced on our nucleus estates, with another 22% FFB coming from plasma smallholder and 6% from third party estates. Procurement spend on FFB was around 10% in 2018.

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). 73% of FFB is produced on our nucleus estates, with another 22% FFB coming from plasma smallholder and 6% from third party estates. Procurement spend on FFB was around 10% in 2018.

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 10% in 2018.

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 2018, these raw materials were sourced from 403 third-party mills and 46 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 accounts for around 74 % of our Indonesian subsidiaries' procurement of products and services.

As of end 2018, we have achieved full Traceability to the Plantation (TTP) for all GAR-owned mills and a number of our third-party suppliers giving us over 60% traceability to the origin for our palm supply chain. Traceability to the Mill and TTP is maintained through improved procurement processes and documentation. This information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

F1.1a

(F1.1a) Indicate from which State/region(s) and municipality(ies) your disclosed commodity(ies) originate.

Forest risk commodity

Palm Oil

Country/Region of origin

Indonesia

State/Region

Specify state/region

North Sumatra and Riau

Municipality

Specify municipality (1)

Labuan Batu

Specify municipality (2)

Padang Lawas Utara

Specify municipality (3)

Labuhan Batu Selatan

Specify municipality (4)

Kandis

Specify municipality (5)

Tapung Ilir

Specify municipality (6)

Indragiri Hulu

Specify municipality (7)

Indragiri Hilir

Specify municipality (8)

Kampar
Specify municipality (9)
Siak

Please explain

We have 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplied FFB to GAR, about 22% of our total intake of FFB. The third party estates contributes to 6% of FFB to GAR. The feedstock for the mills or FFB is supplied by our 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. It means we fully know and are tracking all supplies of FFB to our own mills. We are able to track these materials closely through internal procedures and controls. While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely.

The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills. At the end of 2018, we also achieved 100% Traceability to the Plantation (TTP) for all GAR owned mills. 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

Country/Region of origin

Indonesia

State/Region

Specify state/region
Jambi and South Sumatra

Municipality

Specify municipality (1)
Sarolangon
Specify municipality (2)
Tebo
Specify municipality (3)
Merangin
Specify municipality (4)
Muara Bungo
Specify municipality (5)

Lahat
Specify municipality (6)
Banyuasin
Specify municipality (7)
Musi Rawas
Specify municipality (8)
Ogan Ilir

Please explain

We have 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

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 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

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 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

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 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely.

The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

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 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability

Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

Country/Region of origin

Indonesia

State/Region

Specify state/region

North Sumatra and Riau

Municipality

Specify municipality (1)

Padang Lawas Utara Mill

Specify municipality (2)

Labuan Batu Utara Mill

Specify municipality (3)

Kampar Mill

Specify municipality (4)

Siak Mill

Specify municipality (5)

Indragiri Hulu Mill

Specify municipality (6)

Indragiri Hilir Mill

Please explain

We have 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

Country/Region of origin

Indonesia

State/Region

Specify state/region

South Sumatra and Jambi

Municipality

Specify municipality (1)

Banyuasin Mill

Specify municipality (2)

Ogan Ilir Mill

Specify municipality (3)

Lahat Mill

Specify municipality (4)

Musi Rawas Mill

Specify municipality (5)

Sarolangon Mill

Specify municipality (6)

Merangin Mill

Specify municipality (7)

Tebo Mill

Please explain

We have 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

Country/Region of origin

Indonesia

State/Region

Specify state/region

Lampung and Bangka Belitung

Municipality

Specify municipality (1)

Mesuji Mill

Specify municipality (2)

Tulang Bawang Mill

Specify municipality (3)

Bangka Barat Mill

Specify municipality (4)

Belitung

Please explain

We have 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

Country/Region of origin

Indonesia

State/Region

Specify state/region

West Kalimantan dan Central Kalimantan

Municipality

Specify municipality (1)

Ketapang Mill

Specify municipality (2)

Kapuas Hulu Mill

Specify municipality (3)

Seruyan Mill

Specify municipality (4)

Kotawaringin Timur Mill

Specify municipality (5)

Gunung Mas Mill

Please explain

We have 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

Country/Region of origin

Indonesia

State/Region

Specify state/region

South Kalimantan and East Kalimantan

Municipality

Specify municipality (1)

Tanah Laut Mill

Specify municipality (2)

Kotabaru Mill

Specify municipality (3)

Kutai Timur Mill

Please explain

We have 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

Country/Region of origin

Indonesia

State/Region

Specify state/region

Papua Mill

Municipality

Specify municipality (1)

Jayapura

Please explain

We have 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates,

third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

Country/Region of origin

Indonesia

State/Region

Specify state/region
Sumatra

Municipality

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

Please explain

We have 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for

our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

Country/Region of origin

Indonesia

State/Region

Specify state/region

Java

Municipality

Specify municipality (1)

Marunda

Specify municipality (2)

Surabaya

Please explain

We have 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

Forest risk commodity

Palm Oil

Country/Region of origin

Indonesia

State/Region

Specify state/region
Kalimantan

Municipality

Specify municipality (1)
Tarjun Refinery

Please explain

We have 171 palm oil plantations across Indonesia and a total planted area of around 500,000 hectares. The feedstock for the mills (FFB) is supplied by our nucleus estates, third-party estates, thousands of individual farmers (plasma and independent), as well as brokers and agents who buy from farmers. In 2018, we produced the majority of palm oil fruit (FFB) on our nucleus estates, with around 69,400 plasma smallholders supplying another 22% of our total intake of FFB. Third party estates contribute 6% of FFB to GAR.

While we do not own the plasma estates, they are tightly integrated into our management system and we are therefore able to monitor and track production closely. The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills.

We have achieved and maintained 100% Traceability to the Mill since 2015 and 100% Traceability to the Plantation for all GAR-owned mills since 2017. It means we fully know and are tracking all supplies of FFB to our own mills through internal procedures and controls. Our traceability information is updated quarterly on the GAR Sustainability Dashboard (<https://goldenagri.com.sg/sustainability-dashboard/>)

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.

	% of revenue dependent on commodity	Comment
Palm Oil	91-99%	We are vertically integrated company in production of palm oil and its derivatives. The majority of our revenue is dependent on palm oil.

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 around 500,000 hectares (including plasma smallholders). As at end 2018, the composition of estates owned by GAR (called 'nucleus') and estates owned by smallholders (called 'plasma') was 79 percent and 21 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.

Forest protection and biodiversity conservation have been a major focus of our environmental efforts for many years. We have identified and continue to conserve 72,000 hectares of land made up of High Carbon Stock (HCS) forests and High Conservation Value (HCV) areas. Our conservation areas are roughly equivalent to the size of Singapore and can be viewed on the GAR Sustainability Dashboard.

Country/Region

Indonesia

Land type

Conservation set aside

Size (Hectares)

72,357

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 consists of:

Indirect Monitoring (Remote Sensing):

- a. In collaboration with MacDonalld Detweiller & Associates (MDA) Canada for deforestation monitoring at 18 PTs that are implementing RSPO New Planting Procedure (NPP) Policy.
- b. Aerial Monitoring: internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and aerial photos by unmanned aircraft or drone.
- c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other information from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry.
- d. GIS (Geographic Information System) monitoring; our staff analyzes and implements Participatory Mapping using satellite photos.

Direct Monitoring

- a. Ground-based monitoring: verification activities on site every 6 months. This monitoring covers all of our operational areas.

Recent infraction(s)

No

Explanation of infraction

Forest risk commodity

Palm Oil

Own and/or manage land?

Own 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 around 500,000 hectares (including plasma smallholders) in Indonesia. As at end 2018, the composition of estates owned by GAR (called 'nucleus') and estates owned by smallholders (called 'plasma') was 79 percent and 21 percent, respectively.

Founded in 1996, GAR was listed on the Singapore Exchange in 1999 and has a market capitalisation of US\$2.6 billion as of 31 March 2019.

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)

394,915

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 consists of:

Indirect Monitoring (Remote Sensing):

a. In collaboration with MacDonalld Detweiller & Associates (MDA) Canada for deforestation monitoring at 18 PTs that are implementing RSPO New Planting Procedure (NPP) Policy.

b. Aerial Monitoring: internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and aerial photos by unmanned aircraft or drone.

c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other information from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry.

d. GIS (Geographic Information System) monitoring; our staff analyzes and implements Participatory Mapping using satellite photos.

Direct Monitoring

a. Ground-based monitoring: verification activities on site every 6 months. This monitoring covers all of our operational areas.

Recent infraction(s)

No

Explanation of infraction

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 around 500,000 hectares (including plasma smallholders) in Indonesia. As at end 2018, the composition of estates owned by GAR (called 'nucleus') and estates owned by smallholders (called 'plasma') was 79 percent and 21 percent, respectively.

Founded in 1996, GAR was listed on the Singapore Exchange in 1999 and has a market capitalisation of US\$2.6 billion as of 31 March 2019.

GAR has several subsidiaries, including PT SMART Tbk. which is listed on the stock exchange in Indonesia.

Country/Region

Indonesia

Land type

Scheme/Plasma smallholders

Size (Hectares)

103,480

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 consists of:

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. Aerial Monitoring: internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and aerial photos by unmanned aircraft or drone.

c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other information from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry.

d. GIS (Geographic Information System) monitoring; our staff analyzes and implements Participatory Mapping using satellite photos.

Direct Monitoring

a. Ground-based monitoring: verification activities on site every 6 months. This monitoring covers all of our operational areas.

Recent infraction(s)

No

Explanation of infraction

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 around 500,000 hectares (including plasma smallholders) in Indonesia. As at end 2018, the composition of estates owned by GAR (called 'nucleus') and estates owned by smallholders (called 'plasma') was 79 percent and 21 percent, respectively. Founded in 1996, GAR was listed on the Singapore Exchange in 1999 and has a market capitalisation of US\$2.6 billion as of 31 March 2019. 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)

288,514

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 consists of:
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. Aerial Monitoring: internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and aerial photos by unmanned aircraft or drone.

c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other information from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry.

d. GIS (Geographic Information System) monitoring; our staff analyzes and implements Participatory Mapping using satellite photos.

Direct Monitoring

a. Ground-based monitoring: verification activities on site every 6 months. This monitoring covers all of our operational areas.

Recent infraction(s)

No

Explanation of infraction

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 around 500,000 hectares (including plasma smallholders) located in Indonesia. As at end 2018, the composition of estates owned by GAR (called 'nucleus') and estates owned by smallholders (called 'plasma') was 79 percent and 21 percent, respectively. Founded in 1996, GAR was listed on the Singapore Exchange in 1999 and has a market capitalisation of US\$2.6 billion as at 31 March 2019. GAR has several subsidiaries, including PT SMART Tbk. which is listed on the stock exchange in Indonesia.

To date, 257,677 ha plantations are RSPO- certified including 51,149 ha smallholder estates, 29 mills, 9 kernel crushing plants, 6 refineries, 7 bulking stations and 1 oleochemical plant. Our certification information is updated regularly on the GAR website: <https://goldenagri.com.sg/sustainability/standards-certifications/rspo/>

Country/Region

Indonesia

Land type

Other, please specify
Land Certified by RSPO

Size (Hectares)

257,677

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 consists of:
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. Aerial Monitoring: internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and aerial photos by unmanned aircraft or drone.
c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other information from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry.
d. GIS (Geographic Information System) monitoring; our staff analyzes and implements Participatory Mapping using satellite photos.

Direct Monitoring

a. Ground-based monitoring: verification activities on site every 6 months. This monitoring covers all of our operational areas.

Recent infraction(s)

No

Explanation of infraction

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 around 500,000 hectares (including plasma smallholders) located in Indonesia. As at end 2018, the composition of estates owned by GAR (called 'nucleus') and estates owned by smallholders (called 'plasma') was 79 percent and 21 percent, respectively. Founded in 1996, GAR was listed on the Singapore Exchange in 1999 and has a market capitalisation of US\$2.6 billion as at 31 March 2019. GAR has several subsidiaries, including PT SMART Tbk. which is listed on the stock exchange in Indonesia.

To date, 205,721 ha of plantations and 32 mills have received ISPO certification.

Certification information is updated on the GAR website:

<https://goldenagri.com.sg/sustainability/standards-certifications/ispo/>

Country/Region

Indonesia

Land type

Other, please specify
Land Certified by ISPO

Size (Hectares)

205,721

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 consists of:

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. Aerial Monitoring: internal monitoring for commercial estates area and conservation area using Sentinel Satellite, Landsat, and aerial photos by unmanned aircraft or drone.
- c. Hotspot and fire spot monitoring using weather satellite data such as NOAA, NASA, VIIRS and other information from SiPongi - Karhutla Monitoring System by Ministry of Environment and Forestry.
- d. GIS (Geographic Information System) monitoring; our staff analyzes and implements Participatory Mapping using satellite photos.

Direct Monitoring

a. Ground-based monitoring: verification activities on site every 6 months. This monitoring covers all of our operational areas.

Recent infraction(s)

No

Explanation of infraction

F1.5

(F1.5) Does your organization collect production and/or consumption data for your disclosed commodity(ies)?

	Data availability/Disclosure
Palm Oil	Production data available, disclosing

F1.5a

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

Forest risk commodity

Palm Oil

Data type

Production data

Volume

3,053,000

Metric

Metric tons

Data coverage

Full commodity production/consumption

Please explain

The bulk of our procurement comprises crude palm oil (CPO) and palm kernel (PK) for our downstream business in Indonesia. In 2018, we sourced from 403 third-party supplier mills and 46 GAR-owned mills, which produced 2,440,000 MT of CPO and 613,000 MT of CPKO. At the end of 2018, we also achieved 100% Traceability to the Plantation (TTP) for all GAR owned mills. 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/>)

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

GAR ensures supply of sustainable materials is adequate through supply chain mapping and capacity building activities. GAR is focused on transforming our supply chain to ensure they are engaged in sustainable palm oil production in compliance with GAR policies to minimise supply chain risks and disruptions.

GAR achieved 100% Traceability to the Plantation (TTP) for all GAR-owned mills in 2017. Several of our third-party suppliers have also started reporting full TTP and we have currently achieved over 60% TTP for our palm supply chain. We are on track to have all out 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. Our efforts include:

- Support for 100% of 69,400 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.
- GAR actively participates in the Indonesian government programme of Perkebunan Sawit Rakyat (PSR). The programme aims to encourage independent smallholders to replant with better quality, high-yielding seeds by giving access to financing and helping them sustain their livelihoods until the trees mature
- Annual SMART Seed and SMART Sustainable Palm Oil Training (SPOT) workshops for suppliers on issues like labour and human rights
- 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 such as: GAR, Nestlé, and Earthworm Foundation collaborating on a project which seeks to empower small farmers and improve their resilience.

These efforts ensure that we continue to have sufficient sources of sustainable raw materials over the next two years. See GAR Sustainability Report for more info:

<https://goldenagri.com.sg/sustainability/sustainability-report/>

F1.7

(F1.7) Has your organization experienced any detrimental forests-related impacts?

Yes

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

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.

Weather events include El Nino events. 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. Financial impact is therefore variable and dependent on the severity of the weather phenomena.

Primary response

New product/technology development

Total financial impact

Description of response

We have noted the increasing occurrence of extreme weather phenomena like El Niño which can lead to severe draught. 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.

- SMARTRI continued R&D efforts to produce more drought and disease resistant seeds. New high-yielding and more resilient seeds/clonal planting materials have already been developed and are scheduled for rollout in the plantations in the next 4 years.

- SMARTRI continued R&D on adaptive agronomic practices to for climate change. We are now exploring ways to optimise water use in our plantations through the use of advanced technology including AI.

Negative financial impact from decreased production which based on the last severe El Nino weather phenomenon ranged between a 10-15% percent drop in palm oil production.

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 well-being 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%. Financial impact is therefore variable depending on the severity of the dry season and exacerbated by haze pollution.

Primary response

Promotion of best practice and awareness

Total financial impact

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 peat lands. 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. In 2018 we had virtually zero fire incidents in our areas. Fire incidents are reported weekly on our Sustainability Dashboard.

We also 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 programme evolved 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 dropped by 99% compared to the previous year.

- In 2018, the programme was expanded to another 15 villages.

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, HCV, 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 process 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 forests-related risk assessments through participatory mapping to map out boundaries alongside assessments of HCS and HCV within our concessions. These assessments are being rolled out 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 Earthworm Foundation for risk assessment of our 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 GSEP. 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>

Updates on GAR's forest conservation efforts are disclosed for public, and can be accessed through link: <https://goldenagri.com.sg/sustainability/forest-conservation/>

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 importance of environmental measures and regulations and we have a separate department that closely monitors and update current requirements of relevant regulations. We will ensure our compliance with relevant regulations to avoid any liabilities that may incur in the future.

This is a current issue.

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.

Impact on water security

Relevance & inclusion

Relevant, always included

Please explain

We are currently focused on managing and mitigating risks related to our most material (environmentally-related) issues which include: no deforestation, forest conservation, no development on peat and conservation of biodiversity. We also focus on riparian zone conservation and rehabilitation and the conservation of water catchment areas. These are also priorities for our key stakeholders such as customers and third-party suppliers. Palm oil trees require a constant, abundant supply of water. Hence, palm oil plantations are only viable in and around tropical regions where there is fairly constant and abundant rainfall throughout the year. Plantations are therefore not opened/developed in any water scarce or stressed areas, and plantations are rainfed and not irrigated. Nevertheless we recognise the growing importance of water-related issues. We have begun a pilot project to assess our water footprint based on Life Cycle Assessment (LCA) Methodology, in accordance to the ISO 14046 to understand the impact of water consumed in our operational activities. The assessment is done within the cradle-to-gate system boundary to calculate the water consumption of seed production, nursery, estate, palm oil mill, kernel crushing plant, bulking, and refinery. As we are at the initial stages of assessing our water footprint, we have not yet done a full water-related risk assessment.

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. From time to time, in line with social and economic policies, 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 explain

F2.1c

(F2.1c) Which of the following stakeholders are considered in your organization's forests-related risk assessments?

Customers

Relevance & inclusion

Relevant, always included

Please explain

Customers expect our business to comply with their sustainability standards/policies. Customers could potentially stop sourcing from us should we fail to comply.

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 methods of engagement. For example, 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 responsible 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 action towards responsible palm oil

In several instances, we have worked with CSO 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. The GSEP was developed with feedback and input from key stakeholders including CSOs such as Greenpeace, Rainforest Action Network (RAN), Forest Peoples Programme (FPP) and our implementation partner, Earthworm Foundation (formerly The Forest Trust). We also continue to improve our Standard Operating Procedures for carrying out FPIC, handling grievances, conflict resolution and participatory mapping, often with input from external stakeholders such as CSOs.

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 are likely to want to supply products 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 with 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 during grievance handling and annual training programmes and workshops.

Outcomes include:

- Improved engagement and trust-building
- 100% Traceability to the Mill
- Collaboration on carrying out Traceability to the Plantation by 2020
- Supporting the conservation of 65,000 hectares of forests by our suppliers
- Smallholder inclusion
- Best practices sharing in responsible palm oil
- Helping smallholders towards certification

As part of our continuous support to our suppliers, a dedicated GAR Supplier Support Team is available to respond to queries from suppliers.

Other stakeholders, please specify

Relevance & inclusion

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?

	Risk identified?
Palm Oil	Yes

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

F3.1b

(F3.1b) 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

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

>6 years

Magnitude of potential impact

Medium-high

Likelihood

Likely

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact figure

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 by end 2019, 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 rehabilitation of degraded peatland . This is crucial for reducing GHG emissions and maintaining hydrological function to prevent floods.

We also protect and conserve riparian buffer zones and water catchment areas to maintain hydrological functions and ecosystem services.

The implementation of these measures is 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. These initiatives are part of our overall operations and expected to continue indefinitely.

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. The issue of fires and haze can also potentially damage our reputation.

Timeframe

>6 years

Magnitude of potential impact

High

Likelihood

Likely

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact figure

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 drought.

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 are continuing 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 in these 32 villages 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 no development of 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 measures to reduce the risk of forest fires.

We are currently rehabilitating 2,600 ha of peatland in West Kalimantan.

We also implement fire management in our concession areas with monitoring, provision of fire-fighting equipment and training 10,000 Emergency Response personnel to suppress fires.

We also engage with and educate our suppliers on Zero Burning.

All initiatives are ongoing.

Cost of response

180,000

Explanation of cost of response

The above figure of USD 180,000 refers to the amount that we spend on the community collaboration fire-free programmes per year. Our other costs such as maintaining preparedness in fighting and suppressing fires are considered part of our overall operational costs. Our fire prevention efforts are part of our overall operations and expected to continue indefinitely.

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, the Ministry of Agriculture in Indonesia issued the 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 as well as focus on environmental issues.

ISPO mandates palm oil producers to conduct both GHG inventory and mitigation of emission sources, including mandatory planning of methane capture. These measures are already being carried out by GAR and to date, over 205,700 hectares of GAR plantations and 32 mills have received ISPO certification.

Timeframe

>6 years

Magnitude of potential impact

Medium-low

Likelihood

Likely

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact figure

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 for example, we need to have methane capture facilities. Based on the assumption that the cost of a methane capture facility to capture and utilise the biogas from POME is around USD 2 – 3.5 million (we currently have 7 plants). There are also operational costs for maintenance and plant upkeep till end of the facility's 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, and we plan to expand on these activities through working on new and improved facilities. The facilities capture methane gas which is then used as an alternative energy source, generating electricity for our palm oil mills. These facilities can reduce between 40 – 55 % of operational emissions on site. We are also currently working on implementing GHG reduction measures, such as CO-composting, Energy Management System, etc.

Cost of response

2,000,000

Explanation of cost of response

Based on assumption that the cost of a methane capture facility to capture and utilise the biogas from POME is around USD 2 – 3.5 million (there are currently 7 plants). Operational and maintenance costs are high with no financial incentives provided to industry to offset costs (these are counted as part of operational costs of the mill). These initiatives are ongoing and expected to continue indefinitely.

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 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

>6 years

Magnitude of potential impact

Medium

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact figure

Changes in land tenure regulation can delay our operations as we need to ensure that our operations remain compliant with the regulations. Therefore, there is a potential to 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. These initiatives are ongoing and expected to continue indefinitely.

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

>6 years

Magnitude of potential impact

Medium

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact figure

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. Our initiatives/response in this area are ongoing and expected to continue indefinitely.

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

>6 years

Magnitude of potential impact

Medium

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact figure

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 part of our operational costs and we do not have a separate cost of response. Our initiatives with the community are ongoing; Participatory Mapping is expected to continue for the next 3 years.

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

>6 years

Magnitude of potential impact

Medium

Likelihood

More likely than not

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact figure

Negative media coverage of palm oil and links to deforestation can damage our brand image and potentially lead to boycott 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 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. We are therefore prioritizing the transformation of our supply chain and ensuring that suppliers are in compliance with 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 and third party mills (as of 2018 we have achieved over 60% TTP for our palm supply chain). We are on track to report third-party supplier full TTP 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 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. We are currently supporting the conservation of 65,000 hectares of forests by our suppliers. 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. Our TTP exercise for third-party suppliers is scheduled to be completed at end-2020. Other initiatives with suppliers are ongoing and expected to continue indefinitely.

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

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact (currency)

Potential financial impact figure - minimum (currency)

Potential financial impact figure - maximum (currency)

Explanation of financial impact figure

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.

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.

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.

We are also exploring ways to optimise water use in our plantations through the use of advanced technology including AI.

The implementation of these initiatives is ongoing and will continue in the foreseeable future.

Cost of response

12,000,000

Explanation of cost of response

Our annual R & D budget is currently around USD 12 million - a portion of which is used for R & D on adapting to extreme weather phenomenon and climate change. This R&D will be ongoing and expected to continue for the foreseeable future and certainly in the next 10-15 years.

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?

	Have you identified opportunities?
Palm Oil	Yes

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

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/extraordinaryeveryday/#the-journey>

Estimated timeframe for realization

>6 years

Magnitude of potential impact

Medium-low

Likelihood

About as likely as not

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

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

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. As of end 2018, we have achieved over 60% TTP for our entire palm supply chain (GAR-owned mills and third-party supplier mills).

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. We are now also supporting the conservation of 65,000 hectares of forests by our suppliers.

Estimated timeframe for realization

1-3 years

Magnitude of potential impact

Medium-high

Likelihood

Very likely

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

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

F4.1a

(F4.1a) Select the options to describe the scope and content of your policy.

 GAR Social and Environmental Policy.pdf

Scope	Content	Please explain
-------	---------	----------------

Row 1	Company-wide	<p>Commitment to eliminate deforestation and/or conversion</p> <p>Commitment to protect rights and livelihoods of local communities</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to transparency</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to innovation</p> <p>Commitment to align with public policy initiatives, e.g. SDGs</p> <p>Recognition of the overall importance of forests and other natural habitats</p> <p>Description of forest risk commodities, parts of the business, and stages of value-chain covered by the policy</p> <p>List of timebound commitments and targets</p> <p>Description of forests-related performance standards for direct operations</p> <p>Description of forests-related standards for procurement</p> <p>Reference to international standards and widely-recognized forests-related initiatives</p>	<p>Please refer to our GAR Social and Environmental Policy (GSEP) for more info https://goldenagri.com.sg/wp-content/uploads/2016/01/GSEP-English.pdf</p>
----------	--------------	---	--

F4.1b

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

Do you have a commodity specific	Scope	Content	Please explain
----------------------------------	-------	---------	----------------

	sustainability policy?			
Palm Oil	Yes	Company-wide	<p>Commitment to eliminate deforestation and/or conversion</p> <p>Commitment to protect rights and livelihoods of local communities</p> <p>Commitments beyond regulatory compliance</p> <p>Commitment to transparency</p> <p>Commitment to stakeholder awareness and education</p> <p>Commitment to innovation</p> <p>Commitment to align with public policy initiatives, e.g. SDGs</p> <p>Recognition of the overall importance of forests and other natural habitats</p> <p>Description of forest risk commodities, parts of the business, and stages of value-chain covered by the policy</p> <p>List of timebound commitments and targets</p> <p>Description of forests-related performance standards for direct operations</p>	<p>Please refer to our GAR Social and Environmental Policy (GSEP) for more info https://goldenagri.com.sg/wp-content/uploads/2016/01/GSEP-English.pdf</p>

			Description of forests-related standards for procurement Reference to international standards and widely-recognized forests-related initiatives	
--	--	--	--	--

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) (do not include any names) on the board with responsibility for forests-related issues.

Position of individual	Please explain
Chief Executive Officer (CEO)	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 the 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 the 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.

F4.2b

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

Frequency that forests-related issues are a scheduled agenda item	Governance mechanisms into which forests-related issues are integrated	Please explain

Row 1	Scheduled - some meetings	<p>Monitoring implementation and performance</p> <p>Overseeing acquisitions and divestiture</p> <p>Overseeing major capital expenditures</p> <p>Providing employee incentives</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Reviewing and guiding corporate responsibility strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding strategy</p> <p>Reviewing innovation / R&D priorities</p> <p>Setting performance objectives</p>	<p>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 Chairman's Statement.</p>
-------	---------------------------	--	---

F4.3

(F4.3) Provide the highest management-level position(s) or committee(s) with responsibility for forests-related issues (do not include the names of individuals).

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on forests-related issues	Please explain
Sustainability committee	Both assessing and managing forests-related risks and opportunities	Quarterly	<p>A Sustainability Committee (SC) which is chaired by the 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. the Chairman and CEO of GAR, and the</p>

			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.
--	--	--	--

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 (do not include the names of individuals)?

	Who is entitled to benefit from these incentives?	Indicator for incentivized performance	Please explain
Monetary reward	Corporate executive team Chief Sustainability Officer (CSO)	Achievement of commitments and targets Supply chain engagement	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.
Recognition (non-monetary)	No one is entitled to these incentives		
Other non-monetary reward	No one is entitled to these incentives		

F4.5

(F4.5) Did your organization include information about its response to forests-related risks in its most recent mainstream financial report?

Yes (you may attach the report – this is optional)

 GAR_SR_2018.pdf

 GAR-AR-2018_final_LowRes.pdf

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?

	Are forests-related issues integrated?	Long-term time horizon (years)	Please explain
Long-term business objectives	Yes, forests-related issues are integrated	5-10	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.
Strategy for long-term objectives	Yes, forests-related issues are integrated	5-10	In our GSEP, forest issues are covered under environmental management commitments for: <ul style="list-style-type: none"> 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.
Financial planning	Yes, forests-related issues are integrated	5-10	Activities/initiatives and projects related to the fulfillment of our commitments are always included under annual operational budgets.

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

 GAR Social and Environmental Policy.pdf

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

Zero net deforestation

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%

Cutoff date

2011

Commitment timeframe

2020

Please explain

We adopted the Forest Conservation Policy applicable to our primary operations in 2011. Subsequently this was included in our updated sustainability policy, the GSEP (GAR Social and Environmental Policy) in 2015. The cutoff date for our palm suppliers is therefore 2015.

The GSEP applies to 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. We are working with local communities on long-term forest 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

(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

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

81-90%

Please explain

To date, 257,621 hectares of plantations including smallholders plantation 51,128 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, 288,514 ha of plantations including smallholder plantations of 54,221 ha, 30 mills, 5 refineries and 15 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 Certification International. 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 have received RSPO certification.

Target reference number

Target 2

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

Traceability

Coverage

Direct operations and supply chain

Traceability point

Mill

Third-party certification scheme

Start year

2015

Start figure

21-30%

Target year

2019

Target

100%

% achieved

100%

Please explain

We have achieved 100% Traceability to the Mill (TTM) since 2015 and continue to maintain this annually. In 2018, we achieved full TTM for 403 third-party supplier mills and 46 GAR-owned mills. Our future target is to maintain full TTM.

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. As of end 2018, we have achieved over 60% full TTP for our palm supply chain (GAR-owned mills and some of our third-party supplier mills).

Updated traceability information can be found on the GAR Sustainability Dashboard: <https://goldenagri.com.sg/sustainability-dashboard/> and <https://goldenagri.com.sg/sustainability-dashboard/traceability>

Target reference number

Target 3

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

Traceability

Coverage

Direct operations and supply chain

Traceability point

Plantation

Third-party certification scheme

Start year

2015

Start figure

11-20%

Target year

2020

Target

100%

% achieved

61-70%

Please explain

As of end 2018, we have achieved full TTP for over 60% of our palm supply chain. This includes full TTP for all GAR-owned mills and over 50 third-party supplier 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.

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/> and <https://goldenagri.com.sg/sustainability-dashboard/traceability>

F6.3

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

	Do you have system(s) in place?
Palm Oil	Yes

F6.3a

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

Palm Oil

% of total production/consumption volume traceable

100%

Point to which commodity is traceable

Mill

Description of traceability system

As of end 2018, we maintain full Traceability to the Mill for 403 third-party supplier mills and 46 GAR-owned mills. We have also achieved full TTP for over 60% of our palm supply chain. This includes full TTP for all GAR-owned mills and over 50 third-party supplier mills.

Our future target will be to continue to maintain full TTM as well as achieve full TTP for our palm supply chain by end 2020.

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 also 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. We also share best practices and conduct workshops for our suppliers.

Updated traceability information can be found on the GAR Sustainability Dashboard: <https://goldenagri.com.sg/sustainability-dashboard/> and <https://goldenagri.com.sg/sustainability-dashboard/traceability>

F6.4

(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

Certification coverage

Production volume

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

44

Form of commodity

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

Volume of production/ consumption certified

1,068,933

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.

F6.5

(F6.5) 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:

<https://goldenagri.com.sg/sustainability/supply-chain/>

<https://goldenagri.com.sg/sustainability-dashboard/traceability>

% 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

First-party auditing

Third-party auditing

% of suppliers in compliance with standards

Please explain

Monitoring activities conducted by GAR (in our own concessions) include:

a. Indirect Monitoring (Remote Sensing)

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 end 2018, over 60 % 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 Earthworm Foundation, 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?

	Are you working with smallholders?	Smallholders engagement approach	Please explain
Palm Oil	Yes, working with smallholders	Providing direct training to farmers Providing agricultural inputs Offering financial incentives	At GAR, we have a policy of supporting all (100%) 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. We also support independent small farmers through the Innovative Financing Scheme for independent

			<p>smallholders. The programme aims to encourage more independent smallholders 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 IDR 240 billion from state-owned banks. As at end 2018, around 1,400 farmers had enrolled in the scheme. Concurrently we 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 2,800 independent farmers in East Kalimantan since 2013. They also have access to high-yielding seeds, fertiliser, and herbicides and rent heavy equipment, at below market rates. To date, we have disbursed more than IDR 25 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.</p>
--	--	--	--

F6.7

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

	Are you working with direct suppliers?	Supplier engagement approach	Please explain
Palm Oil	Yes, working with direct suppliers	<ul style="list-style-type: none"> Developing or distributing supply chain mapping tool Collecting data in central database Encouraging certification Encouraging work with multi-stakeholder groups 	<p>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. We completed a significant milestone in 2017 by achieving 100% 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% Traceability to the Mill (TTM) in 2015. In 2018, several of our third-party suppliers have started reporting full TTP and we have achieved over 60% full TTP for our palm supply chain (GAR mills and third-party mills). Our future target will be to achieve</p>

		<p>Supplier questionnaires on environmental and social indicators</p> <p>Workshops and training</p> <p>Supplier audits</p> <p>Supplier charters</p> <p>Technical support</p>	<p>full TTP for our third-party suppliers by end-2020 and maintain full TTM.</p> <p>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 it is also 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 and SMART SPOT (Sustainable Palm Oil Training) workshops are now an annual event and themes are chosen based on feedback and assessment of suppliers' most pressing needs. Workshop topics include human rights and labour issues as well as forest and biodiversity conservation.</p> <p>A dedicated GAR Supplier Support Team is available to respond to queries from suppliers.</p> <p>We also support all of our plasma smallholders as well as independent smallholders as detailed in the previous question.</p>
--	--	--	---

F6.8

(F6.8) Are you working beyond your first-tier supplier(s) to manage and mitigate forests-related risks?

	Are you working beyond first tier?	Please explain
Palm Oil	Yes, working beyond first tier	Our targeted site visits which are carried out with our implementation partner, Earthworm/The Forest Trust, to assess suppliers also includes assessments of their suppliers (Tier 2). 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

		<p>(GSEP) such as:</p> <ul style="list-style-type: none"> - 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 <p>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.</p> <p>Assessment reports of our Tier 1 and Tier 2 Suppliers can be seen on the GAR Sustainability Dashboard:</p> <p>https://goldenagri.com.sg/sustainability-dashboard/files/file_docs/PB3AKbelawan_refinery_report.pdf</p> <p>https://goldenagri.com.sg/sustainability-dashboard/files/file_docs/OLezQtarahan_report.pdf</p> <p>https://goldenagri.com.sg/sustainability-dashboard/files/file_docs/d14nSlubuk_gaung_and_dumai_sustainability_overview_report.pdf</p>
--	--	--

F6.9

(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.

Forest risk commodity

Palm Oil

Do you participate in activities/initiatives?

Yes

Activities

Engaging with non-governmental organizations

Initiatives

Please explain

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. We are also currently supporting the conservation of 65,000 hectares of forests (HCS/HCV) by our suppliers .

Forest risk commodity

Palm Oil

Do you participate in activities/initiatives?

Yes

Activities

Engaging with communities

Initiatives

Please explain

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 <http://bit.ly/GARSR2018> p28 & 31

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

(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 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 forest conservation area in our concessions. We are also supporting the conservation of 65,000 hectares of forests by third-party suppliers.

We are rehabilitating 2,600 hectares of degraded peatland in the PT AMNL concession in West Kalimantan. To date, we replanted replanting over 350 hectares of the buffer zone and are maintaining the water levels of the peat area. This rehabilitation helps us to avoid GHG emissions since peat retains large stores of carbon.

Successful implementation of our Zero Burning Policy has resulted in virtually zero fire incidents on our concessions in the reporting year. Our fire-free programme with local communities Desa Makmur Peduli Api (DMPA) has been successful in reducing firespots and hotspots since its launch in 2016. We have expanded the programme in

Riau and Central Kalimantan and currently 32 villages are part of the programme.

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 include 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 GSEP, we commit to conserve HCS forests, conserve and protect riparian zones, protect and manage peatlands, as well as prohibit burning for new planting, replanting, and other development.

Forest conservation helps mitigate/prevent floods. To date, we have 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.

Riparian zones provide important ecosystem services and can help mitigate downstream flooding. To date we have rehabilitated 2,700 hectares of riparian zones in our concessions. We are also engaged in further research with Cambridge University on riparian zone restoration.

Open and drained peatland is extremely flammable. We are rehabilitating 2,600 hectares of degraded peatland in the PT AMNL concession in West Kalimantan. To date, we have progressed with replanting over 350 hectares of the buffer zone as well as the rewetting of the entire peat area.

In 2018, 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 32 local villages, through the Desa Makmur Peduli Api (DMPA) programme. The DMPA programme has 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, 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 the GSEP, we commit to conserve HCS forests and HCV areas, as well as protect and manage peatlands. This policy which helps carbon sequestration 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 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 supporting the conservation of 65,000 hectares of HCS/HCV forests by our third-party suppliers.

We are rehabilitating 2,600 hectares of degraded peatland in the PT AMNL concession in West Kalimantan. To date, we have progressed with replanting over 350 hectares of the buffer zone as well as the rewetting of the entire peat area. This peatland rehabilitation helps carbon sequestration.

Linkage/tradeoff

Linkage

Type of linkage/tradeoff

Improved water supply

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 (which is also applicable to our suppliers), we commit to conserve and protect riparian zones, HCS, and HCV area. These initiatives help maintain fresh water

supply.

As water is an essential resource for our business, improving water supply also minimises the risk of disruption to our operations.

Policy or action

Under the GSEP, we commit to conserve HCS forests and HCV areas, as well as conserve and protect riparian zones, all of which contributes to maintenance of fresh water resources.

To date, we have 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 also support the conservation of 65,000 hectares of forests by our third-party suppliers.

We have rehabilitated over 2,700 hectares of riparian buffer zones in our 18 concessions to date.

Linkage/tradeoff

Linkage

Type of linkage/tradeoff

Soil conservation

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 are committed to no burning for planting or replanting. This together with our commitment to forest and peat conservation help soil conservation as well as reduce and prevent desertification and salinization.

We are also committed to using R&D and best practices to ensure sustainable agricultural practices. One of the areas our research facility SMARTRI is focused on is soil conservation and we have implemented many practices to maintain soil fertility and minimise soil erosion.

Policy or action

Under the GSEP, we commit to a Zero Burning Policy as well as protecting and managing peatlands. By doing this, we help maintain soil health and contribute to soil conservation.

Our research facility, SMARTRI is also focused developing sustainable agricultural practices and soil conservation. It is actively researching and measuring indicators of soil health and biological activity. Over the years, SMARTRI has also helped implement several measures for soil conservation such as spreading cut oil palm fronds on the soil surface which has resulted in the presence of more insects and also facilitates their

feeding activities. Similarly, recycling empty fruit bunches, fresh or after composting, also enhances soil feeding activities of insects, a good indicator of soil health. Other measures such as encouraging the undergrowth in the plantations and planting beneficial plants such as nitrogen fixing plants are also carried out.

Linkage/tradeoff

Linkage

Type of linkage/tradeoff

Increased water quality

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 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. Forests, riparian zones and peatlands help maintain high water quality, influence the volume of available water, and regulate surface and groundwater flows. Conservation of these areas also help reduce water-related risks such as landslides, floods and droughts and prevent desertification and salinization.

Policy or action

To date, we have 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 are also supporting the conservation of 65,000 hectares of forests by our third-party suppliers.

We have rehabilitated 2,700 hectares of riparian buffer zones in our 18 concessions, and we plan to continue doing so. We are also rehabilitating 2,600 hectares of degraded peatland in the PT AMNL concession in West Kalimantan. To date, we have progressed with replanting over 350 hectares of the buffer zone as well as the rewetting of the entire peat area.

Linkage/tradeoff

Linkage

Type of linkage/tradeoff

Water flow regulation

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 implement our commitment to conserve and protect riparian zones, peatlands, as well as HCS and HCV forests. These commitments help to regulate water flow. Forests, riparian zones and peatlands help maintain high water quality, influence the volume of available water, and regulate surface and groundwater flows. Conservation of these areas also help reduce water-related risks such as landslides, floods and droughts and prevent desertification and salinization.

Policy or action

To date, we have 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 are also supporting the conservation of 65,000 hectares of forests by our third-party suppliers.

We have rehabilitated 2,700 hectares of riparian buffer zones in our 18 concessions, and we plan to continue doing so. We are also rehabilitating 2,600 hectares of degraded peatland in the PT AMNL concession in West Kalimantan. To date, we have progressed with replanting over 350 hectares of the buffer zone as well as the rewetting of the entire peat area.

F8. Verification

F8.1

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

Yes

F8.1a

(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.

As part of our landscape approach to forest conservation, we continued to roll out our conservation planning programmes with local communities. By end 2018, 22 villages have taken part in participatory conservation consultations for joint HCS forest conservation projects with communities. We have 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. Furthermore, through our efforts to transform our supply chain, we are supporting the conservation of 65,000 hectares of HCS and HCV areas by our suppliers.

Our conservation areas are roughly equivalent to the size of Singapore and can be viewed on the GAR Sustainability Dashboard: <https://goldenagri.com.sg/sustainability-dashboard/>

Disclosure module

F5. Strategy

Data points verified

Verification of implementation of GSEP

Verification standard

Verified by RA (Rainforest Alliance) see report at <https://www.rainforest-alliance.org/business/assurance-projects-assessments/gar/>

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.

Overall Summary of Findings:

In general, the companies are all fully committed to implement the GSEP in their operations. It was observed during this verification that all sections of the policy are being addressed. All SOPs for all activities are in line with the policy. In terms of GSEP implementation, some are still at early stages in their implementation of the policy. All three companies, especially KPC, have become leaders in adopting internationally recognized approaches such as HCS assessment. For example, in KPC more than half of KPC areas are now classified as conserved and excluded from palm oil development using existing HCS methodology. A participatory approach forms the basis for conservation and community development programs. This verification has concluded that out of 73 indicators derived from the GSEP, 60 findings are categorized as “fully comply”, 12 findings are categorized as “not fully comply”, and one finding is categorized as “not comply”.

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 257,000 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 280,000 ha of plantations including smallholder plantations of over 54,000 ha, 30 mills, 5 refineries and 15 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 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 HCV, riparian & protected 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.

Forest risk commodity

Palm Oil

Coverage

Supply chain

Primary barrier/challenge type

Supply chain complexity

Comment

The Indonesian palm oil industry is highly fragmented, with over 2 million smallholders managing 44% of all palm oil estates. That means we have to engage with hundreds of suppliers and thousands of smallholders. Complete and continuous engagement with the 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.

Forest risk commodity

Palm Oil

Coverage

Supply chain

Primary barrier/challenge type

Cost of sustainably produced/certified products

Comment

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.

Forest risk commodity

Palm Oil

Coverage

Supply chain

Primary barrier/challenge type

Limited public awareness and/or market demand

Comment

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.

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:

a. 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 essential to their livelihoods, sociocultural needs or ecosystem service provision. These areas will be separated and excluded from plantation development and our High Carbon Stock (HSC) 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.

b. 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 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.

c. 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 promote the use of sustainable palm oil.

F18. 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.

GAR's continuous efforts and contributions on forest conservation are reported in GAR Sustainability Report 2018, available online at: https://goldenagri.com.sg/wp-content/uploads/2019/06/GAR_SR_2018.pdf

 GAR_SR_2018.pdf

F18.1

(F18.1) Provide the following information for the person that has signed off (approved) your CDP forests response.

	Job Title	Corresponding job category
Row 1	Managing Director, Sustainability and Strategic Stakeholder Engagement	Chief Sustainability Officer (CSO)

SF. Supply chain module

SF0.1

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

	Annual revenue
Row 1	7,167,428,000