



## 9. Greenhouse gas emissions

### SPOTT indicators: Does the company disclose...

- |  |  |
|--|--|
| 58) Time-bound commitment to reduce greenhouse gas (GHG) emissions?          | 62) Methodology used to calculate GHG emissions?         |
| 59) GHG commitment applies to scheme smallholders and independent suppliers? | 63) Progress towards commitment to reduce GHG emissions? |
| 60) GHG emissions?   | 64) Percentage of mills with methane capture?            |
| 61) GHG emissions from land use change?                                      |  |

### Relevant SDGs



### Context

Due to concerns over climate change, reporting of greenhouse gas (GHG) emissions has become expected from the corporate sector. Palm oil companies are responsible for GHG emissions, both from land development and their ongoing operations, such as the emission of methane during the treatment of palm oil mill effluent (POME). Considering that an estimated 10% of total global warming emissions are due to tropical deforestation,<sup>1</sup> the industry's most significant emissions are related to land use change such as the conversion of tropical forests and carbon-rich peatlands for palm oil development. Oil palm plantation expansion in Kalimantan alone is expected to contribute 18-22% of all Indonesia's emissions by 2020.<sup>2</sup> In recent years, many companies based in Indonesia have suffered reputational damage and faced governmental scrutiny due to fire and haze events. On several occasions during the 2015 haze season, Indonesia's daily emissions from fire exceeded the average daily emissions generated by the entire US economy.<sup>3</sup>

Strategies to identify and reduce emissions can not only reduce reputational risks for companies, but also future-proof them from change climate risks which could dramatically affect their operations such as extreme weather events, droughts and floods. They can also lead to the adoption of more efficient processes and new technologies, and result in wider identification of land suitable for palm oil development, such as degraded land.

### Obligations and expectations

At a global scale, the United Nations Framework Convention on Climate Change (UNFCCC) aims to stabilise GHG emissions with 197 state parties. Its Kyoto Protocol legally requires developed countries to adopt emission reduction targets, while its Paris Agreement, which was ratified by over 160 countries as of 2017, requires parties to report and reduce their emission and put forward Intended Nationally Determined Contributions (INDCs).

Limits on greenhouse gas emitting activities are enshrined in many countries own legislation, with a 20-fold increase in the number of climate change laws since 1997. Such decisions can impact palm oil companies' operations. As of 2017, Indonesia has a moratorium in place prohibiting new oil palm plantation

### Glossary

#### Greenhouse gases (GHGs)

Carbon dioxide, nitrous oxide, methane, ozone and chloro-fluorocarbons occurring naturally and resulting from human (production and consumption) activities, and contributing to the greenhouse effect and climate change.

<sup>1</sup>Union of Concerned Scientists (UCS). 2013. Deforestation causes 10% of global warming emissions. Cambridge, MA. [Accessed 2 October 2017]. Available from: [ucsusa.org/global\\_warming/solutions/stop-deforestation/global-warming-emissions-from-deforestation.html](https://www.ucsusa.org/global_warming/solutions/stop-deforestation/global-warming-emissions-from-deforestation.html)

<sup>2</sup>Carlson, K. M. et al. 2013. Carbon Emissions from Forest Conversion by Kalimantan Oil Palm Plantations. *Nature* 3: 283-287

<sup>3</sup>Harris, N. et al. 2015. Indonesia's Fire Outbreaks Producing More Daily Emissions than Entire US Economy. World Resources Institute. [Accessed 25 August 2017]. Available from: [wri.org/blog/2015/10/indonesia%E2%80%99s-fire-outbreaks-producing-more-daily-emissions-entire-us-economy](http://wri.org/blog/2015/10/indonesia%E2%80%99s-fire-outbreaks-producing-more-daily-emissions-entire-us-economy)

licenses in primary forests and peatlands as part of its 2020 strategy for reducing emissions. Additionally, the RSPO requires members to monitor and reduce GHG emissions and to minimise GHG emissions from new plantation development. As of January 2017, public reporting of GHG emissions assessments from new plantings became mandatory for RSPO members.

### **Aviva Investors: Clear expectations on GHG disclosure and reductions**

*"Greenhouse gas emissions measurement and reduction have been at the core of environmental management practice for many years and are now one of the most mainstream types of non-financial disclosures.*

*"Financial markets are also demanding corporate disclosure of GHGs in order to better measure and mitigate the risks related to climate change. In 2017, to support the integration of this data into financial decision making, the Financial Stability Board's Task Force on Climate-related Financial Disclosures (TCFD) issued a set of recommendations - including to the Agriculture, Food, and Forest Products sectors, namely in terms of GHG emissions and water use metrics.*

*"We at Aviva investors were represented on the TCFD task force by our Chief Responsible Investment Officer, Steve Waygood, and welcome the TCFD recommendation. We believe GHG emissions and water use reporting should be mandatory and will vote against businesses that do not report in line with the TCFD recommendations.*

*"Considering the environmentally intensive nature of palm oil companies' operations and the availability of tools such as PalmGHG, measurement, reporting and reduction of emissions are no longer optional."*

**Abigail Herron, Global Head of Responsible Investment  
AVIVA INVESTORS**

## **Challenges**

- Calculating GHG emissions and establishing a baseline to reduce emissions from operations and land use is a complex process.
- A lack of consensus on an agreed methodology for calculating emissions from land use change has so far presented a challenge to operations.
- Taking smallholder operations into account adds another layer of complexity to the calculations – however, the RSPO PalmGHG calculator v.3.0.1 is also designed for smallholders.
- Countries have different emissions targets and legislation, which can make it complex for companies operating in multiple countries to develop a coherent GHG emission reduction strategy.

## **Best practice for GHG emissions**

There are several steps that a palm oil company should follow in order to implement best practice in relation to their GHG emissions:

- Companies should identify sources of greenhouse gas emissions in their operations and calculate their emissions using an internationally recognised methodology.
- Emissions from both historical and more recent land use change and peat oxidation should be accounted for in a company's calculations as these are significant sources of GHG emissions.

### Example: Downstream commitments matter

Because they impact the whole supply chain, the commitments made by downstream users of palm oil come as a strong signal of expectations of upstream companies. Corporate objectives regarding GHG emissions reductions cannot be met without engaging upstream stakeholders – as stated by Kené Umeasiegbu, Tesco’s Head of Climate Change and Sustainable Agriculture on the company’s website<sup>6</sup>:

*“As a food retailer, our supply chain and long-term business success depend on the health of the natural environment. Following the Paris Climate Agreement, we worked with external experts to set new, science-based targets which are aligned with a 1.5 degree trajectory and enable us to meet our zero-carbon ambition. Our new targets are to achieve absolute reductions, based on 2015 levels, of:*

- 35% by 2020
- 60% by 2025 and
- 100% by 2050

*In our supply chain, we’ll encourage suppliers to set credible science-based targets on a 2-degree trajectory. Or alternatively aim to achieve ‘absolute’ reductions, based on 2015 levels, of:*

- 7% by 2020 and
- 35% by 2030 (15% for agricultural emissions) – contributing to an overall ‘Scope 3’ reduction of 17% by 2030.

*Our commitment demonstrates our support for the Paris Climate Agreement and UN’s Sustainable Development Goals. These international agreements represent the strongest hope that we can avoid dangerous climate change and create a sustainable future.”*

- Develop targets for reducing GHG emissions from an established baseline, and clearly state the scope and timeframe of targets.
- Adopt strategies for reducing GHG emissions which should include avoiding clearing high carbon areas, as defined using the High Carbon Stock (HCS) Approach, and establishing methane capture in all mills.<sup>4</sup>
- Publicly report GHG emissions together with details on progress towards targets.
- For RSPO members, public reporting of GHG emission assessments for new planting is mandatory.
- Companies can also disclose their carbon emissions reductions with organisations such as CDP.<sup>5</sup>



### Recommended resources

- RSPO PalmGHG Calculator. [Accessed 25 August 2017]. Available from: [rspo.org/certification/palm-ghg-calculator](https://rspo.org/certification/palm-ghg-calculator)
- RSPO (2009) Greenhouse Gas Emissions from Palm Oil Production: Literature review and proposals from the RSPO Working Group on Greenhouse Gases. [Accessed 25 August 2017]. Available from: [rspo.org/files/project/GreenHouse.Gas.Working.Group/Report-GHG-October2009.pdf](https://rspo.org/files/project/GreenHouse.Gas.Working.Group/Report-GHG-October2009.pdf)

<sup>4</sup>High Carbon Stock Approach. [Accessed August 25, 2017]. Available from: [highcarbonstock.org/](https://highcarbonstock.org/)

<sup>5</sup>Task Force on Climate-Related Financial Disclosure. 2017. Recommendations of the Task Force on Climate-Related Financial Disclosure. Final Report. [Accessed August 25, 2017]. Available from: [fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-TCFD-Annex-062817.pdf](https://fsb-tcfd.org/wp-content/uploads/2017/06/FINAL-TCFD-Annex-062817.pdf)

<sup>6</sup>Tesco commits to use 100% renewable electricity by 2030’, Tesco. [Accessed 2 October 2017]. Available from: [tescoplc.com/news/blogs/topics/carbon-renewable-electricity-tesco](https://tescoplc.com/news/blogs/topics/carbon-renewable-electricity-tesco)

## Other SPOTT indicator framework factsheets in the series

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This document is part of a series of factsheets in the publication: *From disclosure to engagement: A guide to the SPOTT indicator framework for assessing palm oil producers and traders*. Below is a full list of the factsheets:

- Factsheet 1: Sustainability policy and leadership
- Factsheet 2: Landbank and maps
- Factsheet 3: Traceability
- Factsheet 4: Deforestation
- Factsheet 5: Biodiversity
- Factsheet 6: HCV, HCS and impact assessment
- Factsheet 7: Peat
- Factsheet 8: Fire
- Factsheet 9: Greenhouse gas emissions
- Factsheet 10: Water
- Factsheet 11: Chemical and pest management
- Factsheet 12: Community and land rights
- Factsheet 13: Labour rights
- Factsheet 14: Palm oil certification
- Factsheet 15: Smallholder support
- Factsheet 16: Supplier selection
- Factsheet 17: Governance and grievances

## About SPOTT

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SPOTT is an online platform promoting transparency and accountability to drive implementation of environmental and social best practice for the sustainable production and trade of global commodities. SPOTT assessments score some of the largest palm oil producers and traders on the public availability of corporate information relating to environmental, social and governance (ESG) issues.

Reframed as the **Sustainability Policy Transparency Toolkit** in 2017, SPOTT now supports transparency for other industries that pose some of the greatest risks to the environment, with SPOTT assessments of timber, pulp and paper companies launched in November 2017.

For more information, visit [SPOTT.org](https://spott.org) or contact [SPOTT@ZSL.org](mailto:SPOTT@ZSL.org).

## About ZSL

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Founded in 1826, the **Zoological Society of London (ZSL)** is an international scientific, conservation and educational charity whose mission is to promote and achieve the worldwide conservation of animals and their habitats.

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