# Anglo Eastern Plantations Plc Carbon and Energy Data 2022

March 2023

accenture

# Carbon reporting

## SECR compliant directors' statement

Anglo-Eastern Plantations Plc (AEP) recognises that our global operations have an environmental impact and we are committed to monitoring and reducing our emissions year-on-year. We are also aware of our reporting obligations under The Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018. As such, we continue to report on our energy and carbon performance and are committed to transparent communication about our environmental impact to our stakeholders.

## 2022 performance summary

AEP's total carbon emissions have reduced by 14% in 2022 from 2021. This is primarily due to a reduction in direct land clearance activities (-8% drop in emissions driven by Pangeran Estate, RAA Estate and Sei Musam Estate) and outgrower land clearance (-11%). As an agricultural business, our carbon footprint is closely linked to our land management and planting practices.

The decrease in emissions has been partly explained by an increase of carbon dioxide sequestered across our estates, rising 4% in 2022. This increase in sequestration is due to the age profile of our estates, as oil palm at the beginning and nearing the end of its crop cycle does not have as great a sequestration potential as those in the middle of the lifecycle.

Our operational emissions have decreased by 3% in 2022, driven by a decrease in fuel use (diesel and biomass) and Palm Oil Mill Effluent (POME) treatment. Biomass emissions decreased 35% since 2021, driven by a decrease in consumption (-6%)[1] and a decrease in the biomass emissions factor (-44%)[2]. Our overall production of crude palm oil (CPO) decreased by 4%, which has driven the 5% decrease in emissions from the treatment of the effluent.

Our overall transport emissions have increased, caused by onsite transport increasing 14% due to additional vehicles in operation during 2022. Emissions from fertiliser use has increased by 37% in 2022, which is driven by the introduction of Double Ammonium Phosphate fertilizer during the reporting period.

## Energy and carbon action

In the period covered by the report AEP has undertaken the following emissions and energy reduction initiatives:

- Connection to the national grid and utilisation of electricity generated from biogas engines across a number of estates to reduce the power generated from the diesel generators.

[1] Biomass consumption was 307,328 tonnes in 2022 and 328,225 tonnes in 2021.
[2] The emissions factor used for biomass in 2022 was 43.0 kg $CO_2e$/tonne, compared to 61.8 kg $CO_2e$/tonne in 2021.

We have reviewed our past carbon footprint performance and conducted an exercise to establish specific emissions reduction targets for the business. We are aware of upcoming changes in best practice guidance, both in the form of the GHG Protocol Land Sector and Removals guidance and across wider target setting guidance. We will review our approach once this guidance has been finalised and released over the course of 2023.

Anglo Eastern Plantations commits to a reduction in absolute scope 1 and 2 emissions by 20.5% by 2030 from a 2019 baseline. This target does not include the impact of sequestration on site, as activity on this is limited to the age profile of our crop.

In 2022, our scope 1 and 2 emissions (excluding sequestration) are 2% higher than in 2019. We have identified the key areas we need to take action as a business to achieve this target, including the conversion of our remaining mills to biogas plants from anaerobic lagoons, limiting our land clearance levels, implementing a no new peat policy and investigating our peat management processes, particularly regarding management of drainage depths.

We commit to reporting progress towards this target each year and revisiting its appropriateness and ambition on a regular basis to maintain its value to our business and stakeholders.

# 2022 results

## Methodology

The methodology used to calculate the GHG emissions is in accordance with the requirements of the following standards:

- World Resources Institute (WRI) Greenhouse Gas (GHG) Protocol (revised version)
- Defra's Environmental Reporting Guidelines: Including Streamlined Energy and Carbon Reporting requirements (March 2019).

Following an operational control approach to defining our organisational boundary, our calculated GHG emissions from business activities fall within the reporting period of 1st January 2022 to 31st December 2022 and use the reporting period of January 2021 to December 2021 for comparison.

## Note on agricultural emissions

Emissions from agricultural cultivation form the most significant part of our carbon footprint. As such we have assessed these emissions in line with the methodology development by the Roundtable for Sustainable Palm Oil (RSPO). Version 4 of the RSPO's PalmGHG application has been used to source relevant emission factors and provide a sense check of calculations.

We include emissions from agricultural cultivation on our own estates within our direct scope 1 and estimate these agricultural emissions from any outgrower crops processed in our mills, included within our scope 3. This is consistent with previous years reporting and is aligned to the

WRI reporting principles of completeness and relevance, whereby scope 1 are the direct emissions sources that we own and control. As mentioned above, we will review our approach upon the release of the new GHG Protocol guidance in 2023.

Emissions from land clearance are reported only for the reporting year in which the land clearance activity took place. No amortisation has been applied, whereby the emissions would be allocated equally over a number of years based on the changing land use during that time. We have chosen not to apply amortisation as there is a lack of industry-acknowledge guidance on this topic at present. We review industry guidance each year and update our methodology as appropriate. There has been no further guidance throughout 2022, thus the approach taken this year is in line with our previous years reporting.

## Terminology

Our emissions and energy use for 2022 is presented in Table 1. The following terminology is used.
*CPO – Crude Palm Oil*
*FFB – Fresh Fruit Bunches*
*POME – Palm Oil Mill Effluent*

## Emissions and energy use

| | Emissions Source | Global Emissions $tCO_2e$ | | Variance | UK Emissions $tCO_2e$* | | Variance |
|---|---|---|---|---|---|---|---|
| | | 2021 | 2022 | | 2021 | 2022 | |
| Scope 1 | Fuels | 25,058 | 18,565 | -26% | 0 | 0 | 0% |
| | Plantation vehicles | 8,077 | 9,209 | 14% | 0 | 0 | 0% |
| | Fertiliser use | 18,531 | 25,425 | 37% | 0 | 0 | 0% |
| | POME Treatment | 142,262 | 135,034 | -5% | 0 | 0 | 0% |
| | Sequestration | -458,738 | -476,707 | 4% | 0 | 0 | 0% |
| | Land clearance | 459,740 | 424,476 | -8% | 0 | 0 | 0% |
| | Peat soil cultivation | 486,436 | 490,314 | 1% | 0 | 0 | 0% |
| **Total Scope 1** | | **681,366** | **626,315** | **-8%** | **0** | **0** | **0%** |
| **Total Scope 2** | **Electricity** | **2,657** | **2,947** | **11%** | **0** | **0** | **0%** |
| **Total Scope 1 & 2** | | **684,023** | **629,262** | **-8%** | **0** | **0** | **0%** |
| Scope 3 | Electricity transmission and distribution | 211 | 262 | 24% | 0 | 0 | 0% |
| | 3rd party vehicles | 7,254 | 7,168 | -1% | 0 | 0 | 0% |
| | Outgrower land clearance | 441,247 | 391,705 | -11% | 0 | 0 | 0% |
| | Outgrower peat soil cultivation | 59,146 | 57,311 | -3% | 0 | 0 | 0% |
| | Outgrower sequestration | -440,333 | -439,904 | 0% | 0 | 0 | 0% |
| **Total Scope 3** | | **67,525** | **16,542** | **-76%** | **0** | **0** | **0%** |
| **Total (Location Based)** | | **751,548** | **645,804** | **-14%** | **0** | **0** | **0%** |
| **Total Energy Usage (kWh)**[3] | | **1,465,500,566** | **1,520,437,938** | **4%** | **0** | **0** | **0%** |
| Intensity ratio | $tCO_2e$ per hectare of planted area | 10.63 | 9.06 | -15% | 0 | 0 | 0% |
| Intensity ratio | $tCO_2e$ per tonne CPO production | 1.59 | 1.42 | -11% | 0 | 0 | 0% |
| Intensity ratio | $tCO_2e$ per tonne FFB production | 0.63 | 0.55 | -13% | 0 | 0 | 0% |

*Table 1 – Energy and carbon disclosures for reporting year.*[4]

* Note Anglo Eastern Plantations Plc is a UK registered company. However, the business does not have any physical presence within the UK, hence the 0% contribution of UK emissions. It is shown in the table for transparency.

[3] Energy reporting includes kWh from scope 1, scope 2 and scope 3 3rd party vehicles only (as required by the SECR regulation)

[4] The analysis of GHG emissions is partially based on the country-specific $CO_2$ emission factors developed by the International Energy Agency, © OECD/IEA 2022 but the resulting analysis of GHG emissions has been prepared by Accenture for Anglo-Eastern Plantations Plc and does not necessarily reflect the views of the International Energy Agency

# Appendix

AEP are required to report to the UK Streamlined Energy and Carbon Reporting (SECR) regulations. To provide comparison with our reporting for 2019 and earlier the data is also provided in a similar format below.

| Emissions source | Results ($tCO_2e$) | | | | | |
|---|---|---|---|---|---|---|
| | 2021 | | 2022 | | Variance | |
| POME Treatment | 142,262 | | 135,034 | | -5% | |
| Fertiliser application | 18,531 | | 25,425 | | 37% | |
| Fuel use | 25,058 | | 18,565 | | -26% | |
| *Diesel* | *4,772* | | *5,339* | | *12%* | |
| *Biomass* | *20,286* | | *13,226* | | *-35%* | |
| Electricity consumption | 2,657 | | 2,947 | | 11% | |
| Electricity T&D | 211 | | 262 | | 24% | |
| Company owned vehicles | 8,077 | | 9,209 | | 14% | |
| Third party vehicles | 7,254 | | 7,168 | | -1% | |
| **Total operational emissions** | **204,050** | | **198,610** | | -3% | |
| | Own crop | Outgrower | Own crop | Outgrower | Own crop | Outgrower |
| Land clearance | 459,740 | 441,247 | 424,476 | 391,705 | -8% | -11% |
| Carbon sequestered | -458,738 | -440,333 | -476,707 | -439,904 | 4% | 0% |
| Peat soil cultivation | 486,436 | 59,146 | 490,314 | 57,311 | 1% | -3% |
| **Total land use emissions** | **547,498** | | **447,195** | | **-18%** | |
| **Overall emissions** | **751,548** | | **645,804** | | **-14%** | |

*Table 2 - 2022 vs 2021 emissions comparison*

The normaliser reported within the main report is calculated using total $CO_2e$ emissions. In previous years the normaliser has been calculated on operational emissions only. This reduces the influence of the fluctuations in agricultural emissions. As such, the operational normalisers are also reported below. The operational planted area intensity has decreased as the operational emissions have decreased (-2%) despite an increase planted area (+1%).

| | 2021 | 2022 | Variance |
|---|---|---|---|
| **Per hectare Planted Area** | 2.89 | 2.78 | -4% |
| **Per tonne CPO production** | 0.42 | 0.44 | 1% |
| **Per tonne FFB production** | 0.17 | 0.17 | -1% |

*Table 3: 2022 vs 2021 Operational emissions intensity ($tCO_2e$)*

| | 2021 | 2022 | Variance |
|---|---|---|---|
| **CPO production (tonnes)** | 473,183 | 455,619 | -4% |
| **FFB production (tonnes)** | 1,190,023 | 1,170,697 | -2% |

*Table 3: 2022 vs 2021 production (tonnes)*

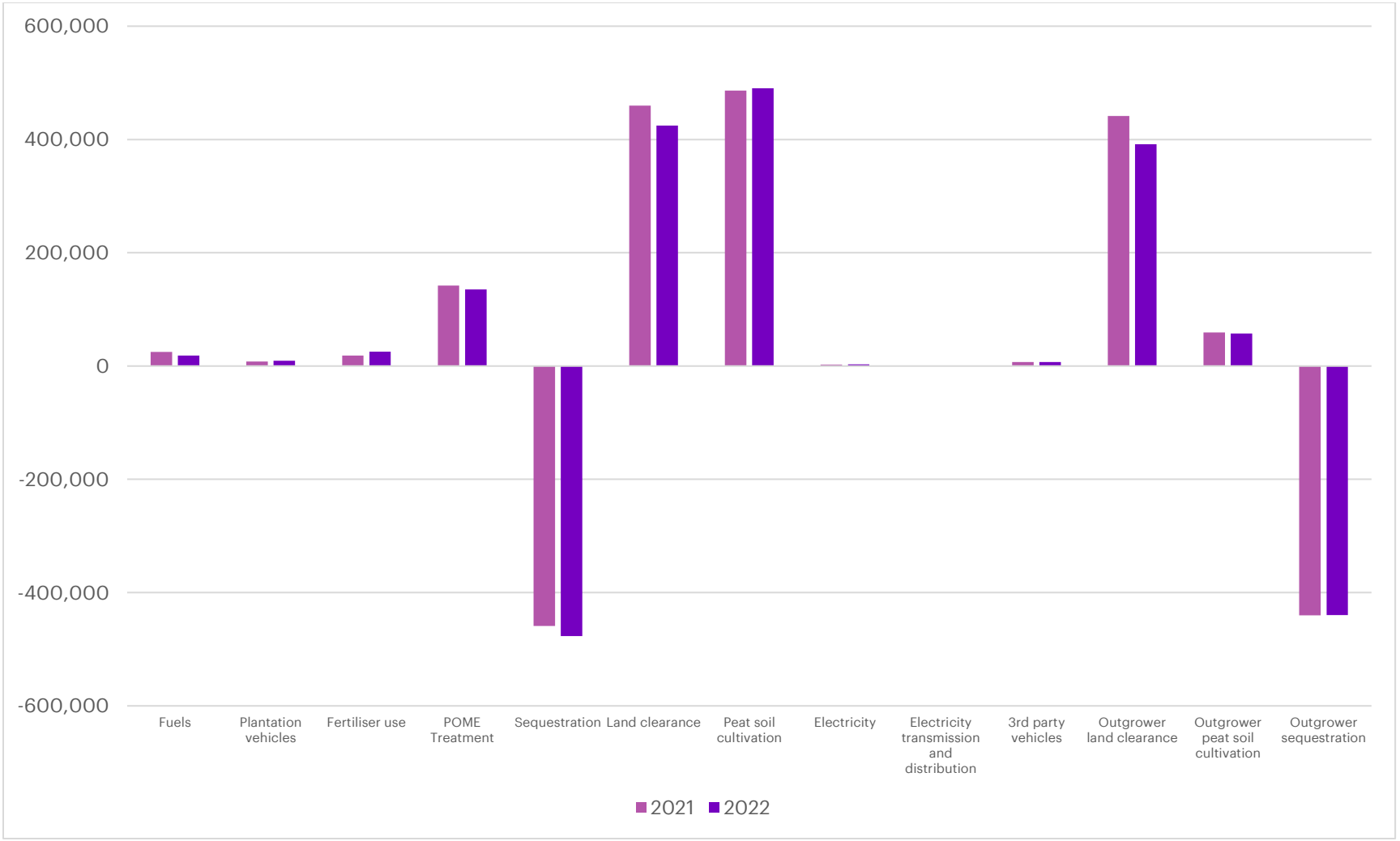


*Figure 1: Comparison of 2022 and 2021 GHG emissions ($tCO_2e$)*