ANGLO-EASTERN PLANTATIONS CLIMATE RISK REPORT

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About this Report

The group comprising Anglo-Eastern Plantations Plc ("AEP") and its subsidiaries (the "Group"), is a major producer of palm oil and rubber with plantations across Indonesia and Malaysia, amounting to some 128,200ha.

This climate risk report has been prepared by AEP in association with Avieco. The report is structured into four sections: Governance, Risk management, Strategy, and Metrics & targets. These topics align to the Task Force on Climate-related Financial Disclosure's (TCFD) recommended disclosures, and provide a comprehensive view into how we understand, assess and manage the risks and opportunities associated with climate change.

Why is climate risk relevant to our business?

Climate change is a strategic risk with potential financial implications for our company, capital providers, suppliers and customers (*Fig.1*). Climate change is linked to increasing weather volatility that can impact our operations and supply chain. Regulatory and societal changes to support the transition to a lower carbon economy can increase costs and create shifts in demand or consumer behaviour that we must consider.

We acknowledge that investors, lenders, and insurance underwriters need to understand how climate-related risks and opportunities could impact our future. We have therefore begun the process – through this report – of aligning our corporate reporting with the recommendations of the Task Force on Climate-related Financial Disclosures.

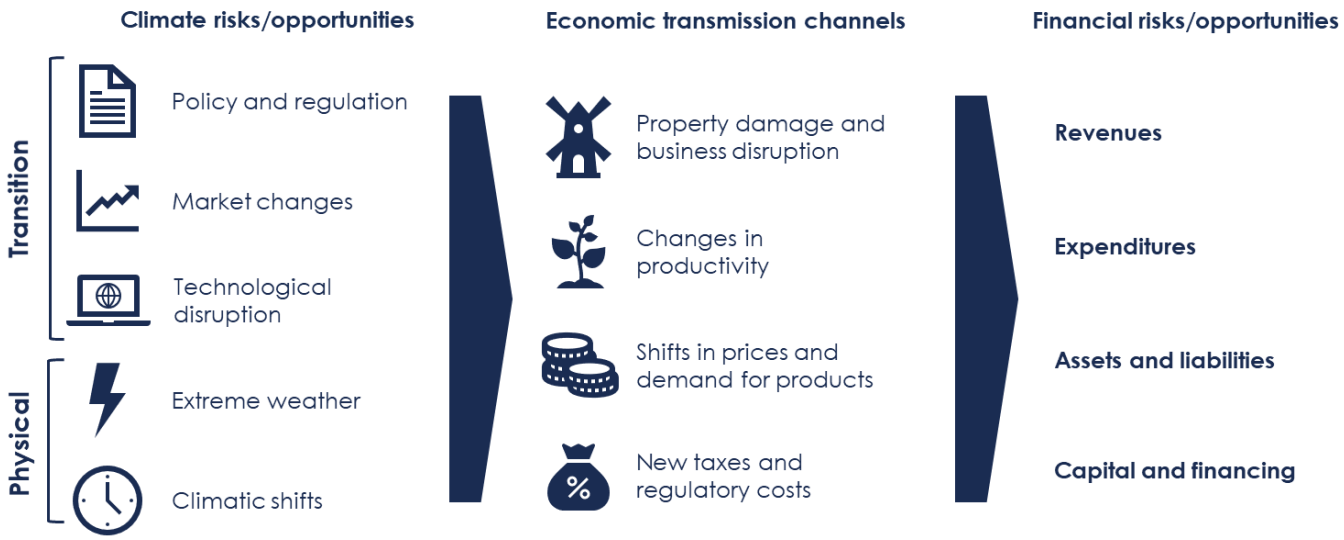

FIGURE 1 CLIMATE RISKS TO FINANCIAL RISKS

Governance of climate risk

The objective of Anglo-Eastern Plantation Plc (AEP) is to provide appropriate returns to investors in the long-term from its operations as well as through the expansion of the Group's business, to foster economic progress in localities of the Group's activities and to develop the Group's operations in accordance with the best corporate social responsibility and sustainability standards.

Responsibility for ensuring that management operates the business in a responsible manner lies with the Group's Board of Directors. The Board has overall responsibility for the Group's systems of internal control and risk management and for reviewing its effectiveness. The Audit Committee reviews and monitors specific risks and internal control procedures and reports to the Board where appropriate.

The Board oversees the Group's corporate governance policies and initiatives, including the Group Sustainability Policy. Our Sustainability Policy aims to drive change needed in reducing environmental impact, delivering more efficient land use, ensuring social justice, and practicing responsible business across all operations. This policy applies to all current and future AEP Group operating units, including mills, or estates which we own, manage, or invest in. Related third parties are expected to comply with this policy while being in any trading relationship with us.

Strategy and risk management

Identifying and assessing risk

Executive staff and Directors are responsible for implementation of control procedures and for identifying and managing business risks. The Executive Committee meets monthly to discuss the operation of the business and is Chaired by the senior general manager from Malaysia. The EHS (Environmental, Health and Safety) and Sustainability Department reports to the Executive Committee on material local risks, identified by representatives of the Department based at each of our estates.

In addition, in 2021 we consulted with our external sustainability partners, Avieco, to identify and prioritise Group-level climate-related risks and opportunities. During this process, senior managers and Directors from across the business were surveyed to understand the relative materiality of a range of physical and transition risks. Materiality was defined by calculating a risk score based on the relative frequency/likelihood of a risk materialising in a 12-month period, and the potential magnitude of impact based on change in operating profit. The climate-related risks and opportunities assessed as being material to the Group are detailed in *Table 1*. A workshop with senior managers and Directors was facilitated by Avieco to determine how the business expects these risks to change over time, and relevant risk mitigation/adaptation measures.

Influence of climate-related risks and opportunities on strategy

Products

The adverse perception of palm oil as an environmentally unfriendly and non-renewable source, particularly in EU, continues to feature in recent years, touching on issues including deforestation, emission of greenhouse gases, planting on peatland and land rights. AEP is committed to ensuring that our products are produced in a sustainable way. This is realised by not clearing forests (zero deforestation), not planting on peat (zero peat), respecting, and protecting human rights, and committing towards the traceability of our products.

Supply chain

Severe adverse weather conditions, such as tropical storms, can result in extended business interruption through disruption to our supply chain and to local transportation services. For example, fresh fruit bunches (FFB) produced in KAP are sold to local millers (rather than primary customers more than 600km away) during the wet season. This is because transport time more than doubles as lorries are frequently stuck in mud as untarred public roads are easily damaged by incessant rain and floods. The Group is therefore conducting a feasibility study to build a 45MT FFC/hr mill in KAP to reduce high logistic costs.

Operations

To progressively reduce the greenhouse gas emissions per metric ton of crude palm oil (CPO) produced in the next few years, the Group plans to construct biogas plants at our remaining palm oil mills, on top of our four existing biogas plants. Our plants will be used to trap the biogas from the anaerobic treatment of the palm oil mill effluent and generate electrical power.

In addition, the Group consistently practices good agricultural practices such as zero burning, integrated pest management, soil and water conservation and recycling of biomass. When it comes to replanting, the old palms felled are chipped and shredded and left to decompose at the site. This mitigates the greenhouse gas emissions commonly associated with open burning when land is cleared through the traditional method of slash-and-burn. It also enriches the organic matter in the soil and recycled nutrients back onto the soil.

TABLE 1 MATERIAL CLIMATE-RELATED RISKS AND OPPORTUNITIES FOR AEP

Type	Primary risk/ opportunity driver	Rationale for inclusion as priority risk	Management approach
Policy & Legal	Compliance with changing regulations	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. The Indonesian Sustainable Palm Oil (ISPO) certification, which requires producers to mitigate their environmental impacts, is legally mandatory for all plantations in Indonesia and therefore non-compliance presents a financial risk through fines. In addition, we expect additional climate-related disclosure, aligned with the recommendations of the TCFD, to be made mandatory for the Group in the UK by the end of 2022.	All of our Indonesian plantations are currently certified under ISPO, except those for which we are awaiting land titles. Our Malaysian plantation has also received the Malaysian Sustainable Palm Oil certification. Our mill in Alno has received The International Sustainability and Carbon Certification, and we are in the process of gaining ISO 14001 certification to improve our PROPER rating. Through this report we have also begun the process of aligning with the TCFD recommendations.
Market & Reputation	Changes in buyer preferences / Difficulty accessing capital	Negative perceptions about palm oil and its links to deforestation can affect market access/demand and possibly lead to changes in international legislation or regulations. Many large buyers have targets to source a certain % of palm oil from Roundtable on Sustainable Palm Oil (RSPO) certified producers. The loss of a major customer through a lack of RSPO certification may impact profitability. Access to capital, through banks and investors, is also increasingly tied to the ability to evidence the sustainability of palm oil products, with several large banks and investors RSPO members.	As tenders are performed on a weekly basis we do not find ourselves overly reliant on a single customer. We ensure transparency in our palm oil production practices through annual disclosure to SPOTT and certification as detailed above. We communicate regularly with buyers and capital providers, to understand their changing expectations, and are investigating the value of RSPO to the business. Our financial position also currently negates the need for financing through bank loans.
	Development of new products	Palm oil can be used to produce a range of products, including low-carbon alternative fuels and materials. The development of new products can provide both reputational and financial opportunities, despite in many instances being expensive to produce. For example, increasing demand for biodiesel in markets such as China offers additional sources of revenue. However, policies in the EU to reduce and phase out the use of palm oil in biodiesel by 2030 means that this opportunity may be limited.	One of our mills possesses a biomass plant which converts "empty fruit bunches" into dried long fibres to be exported to China for use in mattresses and products such as furniture. We are also exploring commercial avenues for bottled methane gas (Bio-CNG), which we can also use as a source of renewable fuel in boilers, or as a replacement for diesel fuel for our FFB carrying trucks within the estates. This can provide a reputational benefit, increased operational resilience, and new revenue streams.
Technology	Use of lower emission sources of energy	Palm oil mill effluent (POME) is used as a feedstock In anaerobic digesters to produce biogas which contains about 60% methane. The biogas is purified and used as a fuel in biogas engines to generate electrical power which reduces our reliance on diesel.	Four of our mills are equipped with biogas plants to capture biogas and generate electricity for sale to the state authorities. This also reduces the need to purchase diesel for our estates, as they are instead supplied power by the grid, therefore reducing our emissions.

Physical	Heavy rainfall & flooding		Excessive rainfall generally leads to poor pollination of palms and reduces the effectiveness of fertilisers. High levels of rainfall can also disrupt estate operations and result in harvesting delays with loss of FFB or deterioration in fruit quality. Where leading to a reduction in revenues, insurance cover may not be available or may be disproportionately expensive. Periods of more intense precipitation can also benefit AEP, by enabling the conservation of more water to mediate dry periods.	Where appropriate, bunding is built around flood prone areas and canals/drainage/retention ponds and water gates are constructed and adapted to evacuate surplus water. Riparian reserves are also protected to mitigate flood risks. Where the land is undulating, we build terraces for planting which helps to prevent landslides, ensures that water runs off into groundwater stores, conserves nutrients effectively, and provides better accessibility for operations. Where practical, natural disasters are also covered by insurance policies.
	Droughts		Dry periods affect palm oil yields in the short and medium term through moisture stress and can result in wildfires that may damage the palms. Drought events are localised to our Kalimantan and South Sumatera estates, where long droughts (>3 months) can affect soil quality and lead to a lower yield the following year (~10-15% decrease at most). Lower rainfall provides opportunities, however, to repair and realign roads to improve the transport of crops.	Legume cover crops are planted to minimise soil erosion, preserve soil moisture and improve soil chemical and physical properties. In mature areas, fronds and EFB are placed inter-rows to allow the slow release of organic nutrients while minimising soil erosion. Conservation pits and sumps are constructed to harvest and contain rainwater, whilst the spreading of oil mill effluent in lines provides a water storage medium. 'Terracing' also ensures that water runs off into groundwater stores. We are also closely following developments of drought-resistant oil palm varieties.
	Fires		During drought season the risk of fire is present at several estates, especially where neighbouring land is burnt for crop cultivation by locals. El Nino weather events can indirectly drive widespread forest fires and haze, although the severity of El Nino events appears to be decreasing as a result of changing climatic conditions. The financial impact of fire damage is relatively low to the Group due to the diverse geographical spread of plantations.	Fire response crews are stationed in each estate, with regular training on firefighting techniques and safety provided by local fire departments. Ditches and boundaries are created to prevent the spread of fire, whilst watch towers have been built in every estate to pinpoint outbreaks of fire as soon as smoke is detected. The Group has also invested in drones to pinpoint outbreaks of fire where accessibility is restricted. Where practical, natural disasters are also covered by insurance policies.
	Pests & disease		Rhinoceros beetle or Oryctes damage has been observed in areas of large-scale replanting, whilst plantations have previously been detrimentally impacted by stem rot. More extreme fluctuations in precipitation may drive increased damage from bagworms and leaf beetles. There is evidence that pollinating weevils, which help to pollinate palm trees, are showing smaller flight capabilities and pollinating less because of changing climatic conditions.	Pest and disease events are localised, with early-warning provided by supervision and monitoring, and generally impact immature palms. Outbreaks are managed through biological controls, such as the planting of beneficial plants that host natural predators to divert bagworms from oil palms, and the introduction of barn owls to control rats. Individual estates have also been replanted with more resistant anti-*Ganoderma* material to reduce the threat of stem rot. A variety of planting materials are also being considered to provide variability and pollens, to mitigate changes to pollinating insects, and hand pollination can also be carried out where required.

Key = Opportunity / Risk

Metrics and targets

AEP is committed to managing our impact on the environment through a robust sustainability reporting process. The Group has calculated and reported our greenhouse gas ("GHG") emissions each year since 2013, complying with the reporting requirements of the UK's Companies (Directors' Report) and Limited Liability Partnerships (Energy and Carbon Report) Regulations 2018 and following internationally recognised best practice in this area.

[**Avieco recommendation:** AEP to include FY20 SECR disclosure here – to be provided separately. Note, however, that it is a legal requirement for SECR disclosure to be made in the Director's Report, or the Strategic Report if deemed to be of sufficient importance by AEP]

Avieco recommendations for further disclosure

TCFD

The Task Force on Climate-Related Financial Disclosures (TCFD) was created in 2015 by the Financial Stability Board (FSB) to develop consistent climate-related financial risk disclosures for use by companies, banks, and investors. The TCFD requires organisations to disclose how climate change is integrated into their governance, strategy, risk management, and metrics and targets (*Fig. 2*).

FIGURE 2 THE FOUR THEMATIC AREAS OF THE TCFD RECOMMENDATIONS

The Financial Conduct Authority (FCA) has confirmed that, from 1 January 2021[1], premium listed companies in the UK will be required to make better disclosures about how climate change affects their business, consistent with the recommendations of TCFD.

Some of the world's largest purchasers of palm oil currently support the TCFD recommendations, including Unilever, PepsiCo Inc, Procter & Gamble, Nestlé, and BASF. We recommend that a business follows a five-step process when aligning with the TCFD:

1. Prepare: Review existing climate disclosures and initiatives to provide an accurate measure of where you are, where your largest gaps are relative, and what you need to do next.
2. Embed: Agree roles and responsibilities across key functions (risk, finance, etc) and integrate climate-related risk management into corporate governance processes.
3. Analyse: Identify and prioritise key climate-related risks and opportunities, quantify these impacts financially, and assess the how these impacts may vary under different climate scenarios.
4. Respond: Develop a management response to key risks and opportunities, and develop metrics and targets for managing climate-related performance (i.e. emissions reduction targets)
5. Disclose: Solicit feedback from external stakeholders on desired climate-related information and prepare TFD-aligned disclosures in annual report.

CDP

CDP is an international non-profit that drives companies and governments to reduce their greenhouse gas emissions, safeguard water resources and protect forests. Voted the number one climate research provider by investors, CDP works with institutional investors with assets of US$87 trillion and leverage investor and buyer power to incentivize companies to report, manage and reduce their environmental impacts.

In 2019, 96 companies who produce or source palm oil from Indonesia disclosed information to CDP. These companies include Wilmar International and Golden Agri-Resources. Several other companies have since been targeted by investors for not disclosing to CDP. These include PT Astra International, Kuala Lumpur Kepong Berhad, and Charoen Pokphand Indonesia[2].

In 2021, companies will be required to respond to the relevant CDP questionnaires by 28 July. The questionnaires, reporting guidance, and scoring methodologies, are currently available here.

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[1] HM Treasury. 2020. *A Roadmap towards mandatory climate-related disclosures*.

[2] CDP. 2019. *The Palm Book: Tracking progress of sustainable palm oil commitments in Indonesia*.