

What does a low carbon palm oil industry look like?

How secure is our global food supply? The food industry is currently wrestling with multifaceted concerns regarding food security, driven by demographic changes, population growth and political instability. This is on top of climate change and the associated risks that it poses to both producers and consumers.



Plantation

The question on all of our minds is, can it be possible to address these two, optically opposing issues, simultaneously? Is there a low carbon food solution?

At Sime Darby Plantation Berhad (SDP), we believe there is, and that palm oil has a critical role to play. It is nutritious, versatile, cost-effective, and – as the most efficient plant-based oil in the world – when managed sustainably, is a responsible environmental choice.

At SDP, we recognise that we have a critical role to play in protecting and enhancing the environment, while also producing palm oil in the most beneficial way for society; this ethos guides our operations on the ground. We are also ambitious and are currently developing our own plans to reach net-zero carbon emissions across our entire value chain.

Operating within the Forest, Land and Agriculture (FLAG) sector, we recognise that our industry contributes significantly to global greenhouse gas (GHG) emissions. After energy, the FLAG sector is the second largest emitter of carbon, accounting for 22% of global emissions. Our industry is also at the highest risk from the impact of climate change, so we have a collective interest in minimising our environmental impact. Yet the FLAG sector also has a secret weapon: forests and soils store carbon, so GHG removal can also be achieved by restoring natural ecosystems, deploying silvopasture, improving forest management practices, and enhancing soil carbon sequestration on pasture and farmland. This must, therefore, be a critical part of any carbon reduction strategy.

To keep 1.5°C within reach, tackle food crisis risks and enable the transformation to a global net-zero future, cutting land-related emissions is imperative for our industry, but a key barrier until now has been the lack of available guidance and methods.

We, therefore, welcome the recently-launched Forest, Land and Agriculture Science Based Target Setting Guidance (SBTi FLAG), and we will ensure that any forthcoming net-zero commitment is fully aligned with these new guidelines. We also recognise the importance of working collaboratively with our industry peers, sharing expertise as to how best we can approach this challenge. Together, we can make the greatest difference.

At SDP, sustainability is central to how we operate. We pioneered the industry's zero-burning replanting technique to clear fields of old and unproductive palms without using fire and causing emissions, whilst improving soil quality. We were also a founding member of the Roundtable on Sustainable Palm Oil (RSPO) and started working towards 100% RSPO certification across our operations in 2008, making sustainable, ethically-sourced palm oil our rallying cry.

There are a number of key focus areas that we at SDP believe the plantation industry needs to focus on. We also can't do this alone; it is important to bring our suppliers on this journey with us. Our aspiration is to develop new solutions, lead by example, and do our utmost to support our suppliers to follow our lead.

- **Carbon reduction** – The FLAG industry has an important role to play in managing emissions and improving energy efficiency to mitigate the adverse effects of climate change. At SDP, we are

currently developing plans to reach net zero carbon emissions across our entire value chain. In the meantime, our existing target is a 50% reduction of carbon emissions by 2030, with our focus on:

- Reducing emissions directly from our own operations, including planting, fertilising, harvesting, extraction, transportation and processing of raw materials
 - Continuously working towards improving the energy efficiency of our operations
- **Renewable energy** – Renewable energy is an important tool for the sector to reduce carbon emissions. In 2014, we set up Sime Darby Plantation SDP Renewable Energy Sdn Bhd to establish ventures in co-developing our biogas plants, as well as other renewable energy initiatives such as solar and biomass.
 - **Biogas** – Methane is a high-impact GHG, and is a significant source of emissions from the plantation industry, as it is produced from the anaerobic treatment of wastewater from palm oil mills. Our biogas plant initiatives are vital in our carbon reduction strategy as it tackles the most material emission source of our own operations. So far, we have 12 biogas plants up and running, which have reduced our carbon emissions by 21.6%. Currently, 5 biogas plants are under construction. We aim to have a total of 43 biogas plants across our operations by 2030 and 17 more post 2030.
 - **Solar** – Converting to solar energy is another way the industry can reduce emissions. We commissioned our first solar project in 2018 in Malaysia, leasing 28 hectares of land to a 20 MW project. We continue to look for more opportunities to collaborate and jointly develop large scale solar photovoltaic power plants and solar rooftop projects.
 - **Land use management** – Our industry's large landbank enables us to meet evolving human needs while continuing to advocate for the importance of conserving the ecological profile of our land. At SDP, we have a strict No-Deforestation policy that has been in place since July 2014. We use the High Carbon Stock Approach (HCSA) to estimate the amount of carbon stored in an area of land, to identify those that need to be preserved and protected. In addition, we conduct independent High Conservation Value (HCV) assessments before any new developments, in order to identify areas that may be negatively affected by our operations.
 - **Peatland conservation** – At SDP, as part of our No Deforestation, No Peat, No Exploitation (NDPE) commitment, we have not planted on peatland since 2014. For existing oil palm planted on peat, we employ best management practices to minimise environmental problems. We also engage with local communities to educate them on the sustainable management of peat areas.
 - **Reforestation and restoration** – The FLAG industry has a huge opportunity to increase carbon sinks by restoring forests and planting trees. At SDP we are committed to ensuring the restoration of degraded forests, and the reforestation of areas set aside for conservation in our concession areas. Together with our partners, we have collectively planted over 1.9 million trees to date to restore the forests and conserve endangered, rare and threatened species.

We live on a planet that needs to provide more food on less land, and climate change makes this challenge ever more acute. Our response to this must be to grow the right foods, in the right way, and – for our sector – that means being responsible, innovative and collaborative. At SDP, we pride ourselves on leading sustainable standards and practices; the strategies outlined here are just a few examples of how we – alongside our peers – can work towards making palm oil production a low carbon industry.