



Delivering
Sustainable
Futures

Plantation

Innovation & Productivity Charter



Plantation

Sime Darby Plantation

Innovation & Productivity Charter

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1. Preamble

- 1.1. Being the leading producer of certified sustainable palm oil (CSPO) globally, Sime Darby Plantation (SDP) strives to enhance our production capabilities without compromising our commitment around contributing to a better society, minimising environmental harm, and delivering sustainable development.
- 1.2. Across the aspects of sustainability, we have previously launched the Responsible Agriculture Charter (RAC) and the Human Rights Charter (HRC) to articulate our commitments to the environmental and social aspects of sustainability. The Innovation and Productivity Charter (IPC) completes our commitments. It states our aspirations across the value chain in achieving prosperity, via enabling high levels of productivity in delivering sustainable development.

2. Scope

- 2.1. This charter states our ambition to ensure higher productivity across the value chain to help deliver sustainable prosperity. We are also committed to working with our counterparties and business partners to continuously explore ways to keep innovating and improving on our levels of productivity across the value chain. All our employees will play their part in this.
- 2.2. Sime Darby Plantation's total landbank currently stands at approximately one million hectares in Malaysia, Indonesia, Liberia, Papua New Guinea and the Solomon Islands, of which over 600,000 hectares are planted with oil palm, over 11,000 hectares planted with rubber, around 5,600 hectares planted with sugar, and close to 9,000 hectares are used for grazing pastures for cattle.

3. Commitments

- 3.1. Our relentless commitment to increasing productivity is vital in achieving our vision to be the leading integrated global palm oil player. SDP's upstream operations will continue to focus on operational excellence. We aim to achieve a fresh fruit bunch (FFB) yield of 23 MT/Ha and 23% oil extraction rate (OER). Downstream operations are geared towards becoming the preferred sustainable partner of its customers, focusing on providing high quality, safe and specialised customer solutions.
- 3.2. We are committed to playing a leadership role in the development and promotion of sustainable practices in the palm oil sector. Responsible production is crucial in ensuring that global food security needs are met, without disrupting essential natural habitats and ecosystems whilst still ensuring a positive impact to society. We aim to achieve 100% Roundtable on Sustainable Palm Oil (RSPO), Malaysian Sustainable Palm Oil (MSPO), and Indonesian Sustainable Palm Oil (ISPO) certification for all our products.

3.3. Through innovation, we will look to create more value and sustain growth for our shareholders. Our continuous journey in innovation will feed into our long term goal to reduce our physical footprint, use more renewable resources and recycled material, optimising our ability to produce more in meeting the increasing needs of a growing global population.

3.4. We are committed to making sure all waste created by our value chain are reused, recycled, composted or, when necessary, converted into energy.

- **Management of co-products**

- We have already begun implementing efficient management of co-products. This includes recycling of organic by-products back to the field for soil conditioning and fertility, biogas for energy and Waste-to-Wealth production of health and wellness products, animal feed and biodiesel.

- **Innovative research on fertiliser optimisation, zero discharge technologies and new applications for Renewables**

- We are further developing fertiliser optimisation through trials and innovative research for soil fertility, thus minimising fertiliser run-off and wastages.
- Zero discharge mills technology development is ongoing via the utilisation of sensors to minimise energy use and to maximise quality of oil produced.
- Our Renewables initiative seeks to invest in complementary and integrated platforms to leverage various products and by-products along the palm oil value chain, transforming these into high value-added goods.

3.5. We strive to ensure operational excellence in delivering our commitments by leveraging data-driven Lean Six Sigma (LSS) approaches to strengthen customer focus, empower decision making and optimise business processes.

3.6. In order to achieve maximum productivity in our Upstream Operations, we commit to:

- **Increase oil yield productivity to optimise land use, reduce the pressure to expand into new areas, and minimise our environmental impact**

- We have developed our genome science and tissue culture capabilities to produce high yielding planting materials which we are using in an accelerated replanting programme. The aim for this programme is to improve the average palm age to 12 years by 2025.
- We aim to accelerate the development of Genome Select Material that offers superior yields and OERs, and is more disease tolerant, with more favourable physical characteristics.

- We have embarked on production of another high-yielding planting material (the Super Family Dami seeds), a result of our ground breaking research in tissue culture technology and will endeavour to continuously achieve breakthroughs in both genome science and tissue culture technology.
- We aim to incorporate Precision Agriculture, mechanisation and automation at our estates and mill through the implementation of our Sime Darby Digital Plantation programme. This programme will look at:
 - Further development in the areas of sensor technology, climate resilience and robotics.
 - Big Data and Analytics for future crop production prediction and the ability to take proactive steps that can help improve yields.
 - Digital imaging for monitoring, validation, conduct palm census and detect poor crop health.
- We strive to equip our mills with state-of-the-art new extraction technologies to increase OER. We target to achieve an OER of 23% by 2023.
- We aim to maintain productivity by ensuring our operations are climate resilient, focusing in particular on appropriate water management techniques such as:
 - Minimisation of water extraction.
 - Robust effluent treatment systems.
 - Development of water accountability protocols within all our plantations.
- **Increase workers' productivity to improve income levels and uplift skills through mechanisation & culture change**
 - We seek to achieve a workforce ratio to 1:10.5 hectares by 2023 through providing our workers with advanced technology and mechanised tools, whilst encouraging a performance-driven work culture.
 - We endeavour to increase our research efforts in advanced technologies and robotics in augmented machines to help improve harvesting efficiency.
- **Implement Responsible Agriculture practices to support our no-deforestation, no-peat and no-exploitation (NDPE) commitments through Best Agro-Management Practices.**
 - We commit to decrease residency time in the nursery and deliver to our estates the highest quality seedlings (within 12 months in age) through our industry-leading nursery management.
 - We strive not only to minimise soil fertility loss and conserve moisture through best practice in our soil and water conservation, but also to design proactive programmes to improve soil fertility.

- We seek to maximise palm uptake for growth and yield with annual leaf sampling and analysis, followed by field assessments and recommendations through our managed fertiliser programme.
- **Operational Excellence as the way forward by transformative restructuring.**
 - We will ensure that Lean Six Sigma (LSS) is implemented across all business units to help achieve savings on labour and overheads.
 - We aim to achieve an average harvesters' productivity target of more than 2.0MT per man day.
- 3.7.** Our Downstream Operations strive to ensure continuous Best-in-Class processes and cost management practices which will ensure higher productivity and price competitiveness. Part of that process is innovation for differentiation and customised solutions. To achieve this, we commit to:
 - **Increasing value-added palm oil production to help feed the world's growing population**
 - We aim to be the preferred customer solutions provider by:
 - Focusing on differentiated, sustainable and traceable high-value products;
 - Increasing our presence in key geographical markets.
 - We aim to increase the ratio of differentiated products to commodity products. The percentage of differentiated products has increased to 48.5% in FY17/18 from 33% in FY14/15, and we will strive to keep pushing further.
 - We will continue to drive physical CSPO sales rather than green certificates. In FY17/18, we achieved 84% physical sales which is almost double the amount from FY14/15 at 46%.
 - **Producing products of the highest quality, guaranteeing timely delivery to our customers**
 - We strive to deliver our high quality products to consumers by improving processes through automation and supply chain optimisation for effective planning, procurement and handling.
 - Through the Certio brand, we commit to produce higher volumes of our Premium Quality oils with lower free fatty acid (FFA) content.
 - We ensure that our palm oil products produced by our mills and refineries are traceable to our own estates, tracked through our 'Open Palm' dashboard. As of September 2018, our traceability is at 80% and we will strive towards achieving 100% traceability.

- **Delivering products with the best safety and health standards**
 - We ensure our products are always safe for the consumption of our consumers.
 - We strive to minimise process contaminants such as glycidyl fatty acid esters (GE) and 3-monochloropropanediol (3-MCPD) through improved processing at mills and refineries.
- **Operational Excellence as the way forward by gearing towards innovative end-to-end approach.**
 - We will optimise value chain efficiency through operational excellence of each business unit to maximise profit margin and drive organic growth.
 - We leverage operational excellence as a key enabler to ensure translation of voice of the customers into product and process innovative enhancements.

3.8. SDP will tirelessly continue to innovate and excel in all aspects, towards our vision of becoming the Leading Integrated Global Palm Oil Player. We are committed in challenging ourselves to continuously improve and change the way we produce, the way we work, and the way we carry our businesses.

4. Approach

4.1. We will ensure that the commitments outlined in this Charter are successfully and efficiently executed. To this end, a Transformation Office has been set up to drive, track and monitor the execution of the initiatives outlined in this charter as well as to drive the transformational aspects of the commitments.

4.2. We will continuously strive to deliver sustainable value to all stakeholders by realising the full potential of our people. The launch of our Operational Excellence and Innovation Business Management Strategy (OEIBMS) 2.0 in 2018 aims to support the operationalisation of our commitments and further unlock RM 550 million in cumulative benefits by 2022.

4.3. In materialising this, the deployment of our Business Management Strategy centers around a holistic approach that focuses on strategic stewardship, tactical development and cultural transformation.

- **Strategic Stewardship – The Vision and Commitment**

The strategic approach involves the development of the strategy blueprint to provide strategic vision and direction. The strategy is supported by Lean Palm and Value Chain Enterprise programmes, which are customised roadmaps of both Upstream and Downstream operations respectively. The Clone Protocol programme aims to enhance the operationalisation of these roadmaps by replicating proven high impact improvement projects across all operating units.

- **Tactical Development – The Skills Development**

The tactical approach involves capacity and competency building, and the development of learning modules that cater to different levels of projects complexity. The enhancement of our Universal Learning programme aims to make Operational Excellence resources accessible anytime and anywhere, with technology

- **Cultural Transformation – The Change Within**

The cultural approach focuses on driving cultural change throughout the organisation. The deployment of our War on Waste programme involves rapid continuous improvement projects that impact the company's bottom-line through the empowerment of all of our employees.

5. Implementation

5.1. The commitments in this Charter are effective immediately for all of our operations globally.

5.2. Through awareness and training initiatives, we shall engage with and educate all our operational staff to enable them to understand their responsibilities and to empower them towards achieving the commitments outlined in this Charter.

6. Responsibilities And Reporting

6.1. The oversight of this Charter is led by the Plantation Leadership Board, through the Sustainability Committee. The implementation and administration of this Charter is the responsibility of the management within each stream.

6.2. We will report on the performance and progress to the Sustainability Committee on a quarterly basis, and also disclose progress to external stakeholders through our Annual Reports.

6.3. This Charter will be reviewed at a minimum every three years.

6.4. This Charter will be made available to all stakeholders and players in our supply chain.