**Malaysian Sustainable Palm Oil**

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**ABSTRACT**

The Malaysian Standard (MS) for the production of the Malaysian Sustainable Palm Oil (MSPO) is applicable to the processes along the whole supply chain commencing from plantations and smallholders to mills, the main gateway; and followed by kernel crushing, refining, storage and transportation. It can be applied to either the whole supply chain, parts of the supply chain or a single product/process in the supply chain. The MS applies to all types of palm oil production irrespective of the source of raw material, geographical location, technology and end user. It is applicable to big, medium and small producers as well as clusters of smallholders. Guidance to comply with the principles, criteria and indicators, as incorporated in the standard on MSPO, is provided in four specific documents, which are part of the certification system covering, in particular, production of certified sustainable palm oil (CSPO) at the milling stage. The system also allows for individual sustainability certification of products/outputs of post-milling operations as well as essential facilities prior to shipping.

**INTRODUCTION**

The idea of sustainability was introduced over two decades ago at the world summit in Rio de Janeiro, Brazil in 1992 and it became popular in 2005 when many initiatives were taken to capture the concept despite its lack of scientifically accepted and universally adopted guidelines. Sustainability is currently a necessity in the development and management of any industry. In the light of this requirement, products produced by any country have to be sustainably produced for it to be acceptable globally. Oil palm, the main agricultural commodity of Malaysia, has to be produced in a sustainable manner in order for the oil produced to be acceptable in the world market. In view of this, the oil palm industry has to develop a standard which addresses all aspects of sustainability.

The sustainability concept, built on the 3Ps of people, planet and profit, encompasses four footprints - the ecological footprint (EF), which was introduced in 1990; followed by the carbon footprint (CF) and the water footprint (WF) in the 2000s; and now the nitrogen footprint (NF), which emerged in 2012. All four footprints measure, in different ways, human appropriation of the planet’s natural resources and its carrying capacity.
The EF measures the use of bio-productive space in hectares; the CF measures the greenhouse gas (GHG) emissions expressed in carbon dioxide equivalents per unit of time or product; the WF measures the consumption and contamination of freshwater resources in cubic metres per year; and the NF measures the amount of nitrogen released into the environment in relation to consumption. A common characteristic of all the four footprints is that they can be related to specific activities, products and consumption patterns. Most importantly, traceability and quantified input and output in a life cycle approach over the whole supply chain, assume paramount importance.

**SUSTAINABLE AGRICULTURE**

With the need to implement sustainability in the oil palm premises, it is important to look at the United Nations Global Compact Sustainable Agriculture Business Principles (White Paper, July 2013) which was circulated to seek feedback from the stakeholders on the principles of sustainable agriculture and in 2014, the Food and Agriculture Business Principles was launched. The six principles are as shown below:

**Principle 1:** Aim for food security, health and nutrition;

**Principle 2:** Be environmentally responsible;

**Principle 3:** Ensure economic viability and share value;

**Principle 4:** Respect human rights, create decent work and help communities to thrive;

**Principle 5:** Encourage good governance and accountability; and

**Principle 6:** Promote access and transfer of knowledge, skills and technology.

A sustainability standard for oil palm must encompass these six principles in order to ensure global acceptance. As a consequence, the Malaysian oil palm industry has to make a paradigm shift from ‘business as usual’ to a more continuous improvement approach. This paradigm shift towards sustainable agriculture may involve a radical change in the oil palm industry outlook on human, social, economic and environmental responsibility. Profitability is important for the development of business but it has to be balanced with other responsibilities such as the protection of the environment and enhancing the welfare of the workers. Therefore, the industry had to move rapidly to develop a standard containing sustainable principles and criteria for the production of sustainable palm oil.

**SUSTAINABILITY STANDARDS**

There are a few standards on sustainability available for palm oil. The main one is the Roundtable on Sustainable Palm Oil (RSPO), which was established by the oil palm business fraternity and non-governmental organisations. Other sustainability standards - specific for biofuel are the International Sustainability and Carbon Certification (ISCC) and the Roundtable for Sustainable Biomaterials (RSB). Most members of the industry have difficulties complying with the requirements of RSPO due to periodic ‘changing of goal posts’ with respect to certification criteria. A major point of contention has been that the interests of small and medium producers were not taken into account during the drafting of the RSPO standard since these groups were not invited for meetings. On account of this, the ministry has given the task to MPOB to draft a standard which is to be submitted to SIRIM for gazetting as an MS. This MS has been named as the Malaysian Sustainable Palm Oil.

The draft standard was first discussed at the Standard Writing Organisation’s meetings. The oil palm industry representatives requested that the draft be circulated to the whole industry for comments. The comments subsequently obtained from the industry were compiled and the draft was revised based on their comments; and a second draft of the standard was prepared based on the national interpretation of RSPO. A meeting between MPOB and the industry was held on the 17 March 2011. At the meeting, two committees were set up. The first was the National Committee (NC) on MSPO which comprised all sectors of the oil palm industry organisations, related agencies, NGO and MPOB, while the second was the Technical Working Committee (TWC) which consisted only of the oil palm industry organisations, MPOB members, and agencies related to oil palm industry. The task of the NC is to endorse the MSPO documents developed and the policy-makers for the standard. The task of the TWC was to develop and improve the draft standards.

**MALAYSIAN SUSTAINABLE PALM OIL (MSPO)**

Both the NC and the TWC met regularly since April 2011 to complete the Draft MSPO. The completed Draft MSPO was submitted to SIRIM and was put up on the SIRIM website for public comments. The Draft MSPO was divided into four parts to address the general principles involved and the specific
principles for smallholders, estates and the mills. Table 1 shows the sequence of events leading to the gazetting of MSPO as the Malaysian Standard.

Contents of MSPO

The four parts of MSPO (Malaysian Standard, 2013a,b,c,d) are as follows:


b. Malaysian Sustainable Palm Oil (MSPO) Part 2: General principles for independent smallholders.

c. Malaysian Sustainable Palm Oil (MSPO) Part 3: General principles for oil palm plantations and organised smallholders.

d. Malaysian Sustainable Palm Oil (MSPO) Part 4: General principles for palm oil mills.

The four parts cover the general requirements of sustainability principles and criteria for the production of certified sustainable palm oil; and are applicable to the three sectors in the supply chain, where most of the best practices are carried out. The requirements included the development and operation of the three sectors, where the first three parts consist of seven principles, while the fourth part for the mills only contains six principles. The governing principles contain in the four parts are as follows:

Principle 1: Management commitment and responsibilities. A policy is necessary to provide incentives for the adoption of sustainable practices. The policy indicates the commitment of the management to implement MSPO. Regular monitoring of the execution of MSPO requirements under internal audit and management review is important to detect the weakness in the implementation. New technologies based on research and developments are to be adopted to ensure efficiency of the operations and better yield.

Principle 2: Transparency. Premises shall provide relevant information required under this MSPO principle in a transparent manner and shall also have transparency during communication and consultation. Traceability is to ensure that the product can be traced to sustainable raw materials. Records related to business activities and any transactions conducted must be updated for examination by auditors. Records are part of the sustainability trail monitored by the auditors.

Principle 3: Compliance to legal requirement. The oil palm industry is a highly regulated agro-

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<thead>
<tr>
<th>No.</th>
<th>Activities</th>
<th>Dates</th>
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<tbody>
<tr>
<td>1</td>
<td>Public comments for the Malaysian Sustainable Palm Oil (MSPO) Part 1: Guidelines for Malaysian Sustainable Palm Oil</td>
<td>1 October - 30 November 2012</td>
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<td>2</td>
<td>Public comments for the Malaysian Sustainable Palm Oil (MSPO) Part 2: General principles for independent smallholders, Malaysian Sustainable Palm Oil (MSPO) Part 3: General principles for oil palm plantations and organised smallholders, and Malaysian Sustainable Palm Oil (MSPO) Part 4: General principles for palm oil mills</td>
<td>1 February - 31 March 2013</td>
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<td>3</td>
<td>Discussion of the public comments on the four parts received and the drafts amended based on the comments. The drafts were sent back to SIRIM to be processed into the Malaysian Standard</td>
<td>2 April 2013</td>
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<td>4</td>
<td>Meeting ISC U on the Malaysian Standard MSPO. The committee evaluate the Draft MSPO and agreed to accept it as the Malaysian Standard with amendments</td>
<td>13 June 2013</td>
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<td>5</td>
<td>Draft MSPO was endorsed by the Malaysian Minister of Science, Technology and Innovation</td>
<td>5 September 2013</td>
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<td>6</td>
<td>The Standard, MS2530:2013, was launched during the PIPOC International Palm Oil Conference by the Deputy Prime Minister of Malaysia</td>
<td>19 November 2013</td>
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<td>7</td>
<td>The Minister of Plantation Industries and Commodities (MPIC) announced the implementation of MSPO Certification Scheme by the oil palm industry. With the announcement, the oil palm industry is expected to be certified sustainably so that palm oil exported from Malaysia is sustainable</td>
<td>November 2014</td>
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<td>8</td>
<td>Several oil palm premises were awarded MSPO certificates</td>
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industry in Malaysia. Premises subscribing to the third Principle of MSPO requirement shall comply with all regulatory requirements, legal land use rights and customary rights.

**Principle 4: Social responsibility, health, safety and employment condition.** One of the elements of sustainability is on social equity and there should be a positive social impact on people and community. Under the United Nations Global Compact for Sustainable Agriculture, respect for human rights is the most important factor when establishing an agribusiness. The producers should respect the rights of the indigenous people and the community surrounding the premises.

As such, the organisation should conduct and address social impact assessment, complaints and grievances. The organisation should show commitment to contribute to local sustainable developments, ensure employee’s health and safety (Figure 1), fair employment conditions and training to enhance competency of the workers.

The oil palm industry in Malaysia has actually played a major role in poverty eradication by providing employment and job opportunities to the surrounding community especially the poor population or those with low income. The Malaysian government also introduced several land development schemes which provide the poor population with land to grow economic crops.

**Principle 5: Environment, natural resources, biodiversity and ecosystem.** Environmentalists always consider environment as the most important element of sustainability. A damaged environment will not help the agriculture crop to thrive, resulting in low yield and thus making agriculture less profitable. The organisation should conscientiously remember the importance of preserving the environment by implementing environmental management programme, efficiency of energy use and use of renewal energy, waste management and disposal, reduction of pollution and emission, natural water resources, status of rare, threatened or endangered species, high biodiversity value area and zero burning practices. Under this principle, two issues that concern most of the industry are greenhouse gas and zero burning. Haze occurs regularly in the middle of the year due to burning and this is one of the causes of GHG emissions.

**Principle 6: Best practices.** Profitability is one of the elements of sustainability and to ensure continuity of the business, the company must implement best practices at the premises. Each organisation must develop best practices to obtain the optimum yield from their crop harvest. Some of the features of best practices include site management, economic and financial viability plan, transparent and fair pricing deals and also subcontracting of some of the operations to others.

**Principle 7: Development of new plantings.** Before a plantation is conceived, the organisation should observe the regulations related to land clearing for new planting. A few assessments need to be conducted such as environmental impact assessment (EIA) and social impact assessment (SIA). Areas which contain high conservation values and wildlife pathways must be identified. This is to prevent conflict between human and wildlife.

Under this principle, issues pertaining to native population well-being has to be taken into consideration and addressed accordingly. Some criteria under this principle include consideration for areas with high biodiversity values, deep peat land and planting on steep terrain (Figure 2) and/or on marginal and fragile soils. The company, after conducting social and environmental impact assessments, shall ensure that the planting of oil palm does not have a negative impact on the surrounding communities. Soil survey has to be carried out, appropriate agronomic practices are to
be implemented by the plantation; and customary land right must demonstrate prior and informed consent from the stakeholders.

Each of these seven principles is supported by criteria and indicators. The criteria and indicators will direct the users on the actions to be undertaken by the company to implement MSPO requirements. Besides the four parts of MSPO standards, a set of guidance has been drawn up with the objective of ensuring harmonious and credible auditing of the standard.

**CERTIFICATION SYSTEM**

With the gazetting of the MS on sustainability, the oil palm industry can implement the requirements in the standard at their premises. The level or extent of the implementation needs to be measured and one of the means to measure is through the certification system. The premises must ensure that the main gateway, where crude palm oil is produced at the mill, has to conform and comply with the principles, criteria and indicators of the standard to produce certified sustainable palm oil (CSPO). The system also allows for individual certification of post-milling operations and facilities in relation to sustainability.

Certification of the MSPO standard will be conducted by independent certifying bodies registered with Standard Malaysia which will be identified by MPOB. The certifying bodies must comply with requirements of ISO 17021 or other system acceptable universally and endorsed by Standard Malaysia. Approximate time from application to certification is 8-12 months. The procedure for certification is shown in Figure 3 and the time-frame in Figure 4. The auditing process will be conducted by recognised competent certification bodies and the companies should follow the procedure in Figure 3 or similar recognised procedure. The auditor has to ensure that the stakeholder consultation is carried out and the report is available during the auditing. This is an important step to prevent conflict between the management and the surrounding community.

**Application**

The auditee is required to submit an application to the MSPO Secretariat. The information submitted will be checked for its authenticity before proceeding to the actual auditing. A risk assessment of the premises will be conducted to ensure full compliance with the standard MSPO.

**Auditing Procedure**

Once the information in the application form has been authenticated, the MSPO coordinator will identify the Certifying Body (CB) to conduct the
Phase 1 audit (Figure 5). The CB will identify the lead auditor and audit team, who will conduct risk assessment of the auditee and subsequently initiate the auditing procedure. The lead auditor will draw up the Phase 1 audit plan and inform the auditee on a suitable date for the audit to take place. Once the auditee agreed on the date, the audit plan will be sent to the auditee and Phase 1 audit will take place as agreed. All the audit findings will be reported and if there are non-compliances observed, the auditee has to take corrective action to ensure compliance. Once the lead auditor accepted the corrective actions undertaken, then the next step is to do Phase 2 audit. The same steps in Phase 1 are followed starting from informing the auditee on the Phase 2 audit until the completion of the corrective actions. Once the lead auditor is satisfied with the corrective actions taken, then the draft report will be submitted to the MPOB Panel Review.

**MPOB Panel Review**

The panel will evaluate the assessment reports based on the evidence submitted by the auditee. If the panel in reviewing that the premises have complied with the MSPO requirement, the document is passed to the CB with the recommendation to certify the premises.

**Certification Panel of CB**

The committee will consider each assessment report submitted for different premises and will make the final decision to certify the premises.

**Surveillance Audit**

Annual surveillance will be conducted within 12 months but not sooner than nine months.
Re-certification Audit

The audit will be carried out in the fifth year of certification, i.e. six months before the expiry of the certificate.

TRACEABILITY

The MS provides guidance for quantifying, communicating and verifying the sustainability criteria of MSPO. It requires a defined goal and scope from the auditee for producing MSPO or CSPO. The MSPO will provide transparently the following benefits to companies, public bodies, consumers, industry and regulatory bodies with the consistency, flexibility and accountability for quantification and communication of the actual audits undertaken. The transparency requirement throughout will enable the interested/involved parties to perceive the relevance and applicability of the MS for different sectors and geographical areas in compliance to the requirements. The different phases viz., 1, 2 and surveillance facilitate the continuous monitoring of the sustainable production of palm oil in reducing the environmental impact, including GHG emissions, thereby ensuring continuous improvement within each sector. Tracking of MSPO certified oil will be based on the traceability system comprising mass balance and segregation. Transparent performance tracking and progress performance reporting during the actual certification and surveillance period will enable an effective tracing of the sources sustainable raw material, this also attest to the total credibility of MSPO.

CONCLUSION

On implementation, the MS - the basis of MSPO - will eliminate confusion with respect to sustainability requirements. It will allow players and contributors along the supply chain to use the reference methodology in the MS to significantly reduce adverse environmental impacts. It will enable buyers of CSPO to make better purchase decisions and invoke better appreciation and higher awareness among them with respect to the stringent requirements laid out by MS and the genuine efforts made by all contributors and suppliers along the supply chain.

All these impacts will further strengthen and entrench the competitive position of the Malaysian palm oil in international markets as a sustainably-produced premium oil of the highest quality.

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REFERENCES


