



Photo: New Straits Times

## Sabah's persists on oil palm industrialisation as Malaysia celebrates 105th anniversary

It has been 105 years since the first commercial planting of oil palms in Tennamaram Estate in Batang Berjuntai, Selangor.

This first commercial estate planted with oil palm seeds sourced from Rantau Panjang, Selangor in 1917, built the foundations of Malaysia's palm oil industry.

Oil palm, once hailed as the agricultural crop of the future in the First Malaya Plan (1956-1960) was intended to diversify the Malaysian economy and reduce its age-old dependence on rubber.

Today, the oil palm industry is one of the key drivers of the country's economy, employing more than four million people in its upstream and downstream sectors.

As a nation, Malaysia combines for about six million hectares of oil palm, which is a source of income for about half a million oil palm smallholders. Sabah accounts for about 1.6 million hectares and until recently when

it was overtaken by Sarawak was for many years the leading plantation state.

The Sabah government initiated POIC Lahad Datu project in Lahad Datu in 2005 intending to promote value-adding downstream industries instead of depending on exporting crude palm oil. Sabah's oil palm plantations and mills also produce annually about 30 million tons of various types biomass with lucrative potentials for processing into energy, fertilisers, biochemical, furniture, pharmaceutical products, etc.

Supply chain issues and lukewarm response of the resource owners to frontier technologies in CPO and biomass utilisation have kept breakthrough at bay. But state-owned POIC Sabah Sdn Bhd, the developer of POIC at Lahad Datu and the prime mover of palm oil industrialisation in Sabah, is persisting with the initiative. A recent pledge by authorities in China about that nation's interest in Sabah oil palm has vindicated POIC's

years of attempt to woo Chinese interests.

Malaysia, as the second-largest exporter of palm oil, exported 15.56 million tonnes of palm oil in 2021 which represented 30.5 per cent of global palm oil trade and 16.4 per cent of global oils and fats exports. Malaysia exported its palm oil and other palm-based products to more than 150 countries and generated RM108.52 billion in 2021.

Palm oil is recognised by the World Health Organisation and Food and Agriculture Organisation as nutritious for human consumption, a suitable replacement for partially hydrogenated vegetable oils.

Today, more than three billion people in 150 countries use products containing palm oil.

As the most efficient oilseed crop in the world, oil palm is five to 10 times more productive than other major oilseed crops; highly efficient with a high output-to-input energy ratio.

The country's oil palm industry has developed remarkably over the last 105 years with many significant milestones achieved.

In 2008, the palm oil industry made a significant breakthrough when the government approved the mandatory blending of palm biodiesel with petroleum diesel for government agencies beginning February 2009 with an extension to the industrial and transport sectors in 2010.

Subsequently, B7 (7.0 per cent palm biodiesel and 93 per cent petroleum diesel) programme was launched in Peninsular Malaysia, Sabah and Sarawak from 2011 to 2015.

B10 (10 per cent palm biodiesel) was introduced in 2013 and B20 (20 per cent palm biodiesel) was launched in February 2020.

Recently, MPOB inked a memorandum of understanding with investors from China and Malaysia, aimed at promoting technical exchange on the production of second generation biodiesel and bio jet fuel.

In 2013, Malaysia, on its own initiative, has developed and launched the Malaysian Sustainable Palm Oil (MSPO) standards that track the sustainable operations and traceability of their products.

The MSPO has been made mandatory since January 1, 2020 and to date, a total of 5.42 million hectares or 92.39 per cent of the total 5.87 million hectares oil palm planted area has obtained the MSPO certification. The MSPO standards have been revised this year to reduce ambiguity

and increase credibility to get recognition from the international market.

Advanced research by scientists at MPOB saw industry-driven products and technologies developed and commercialised. To date, MPOB has developed 709 technologies of which 32 per cent or 227 have been commercialised and these included balanced fertiliser formulation, continuous sterilisation of fresh fruit bunches, bioactive compound and santan sawit.

On the other hand, MPOB has filed 383 patents, of which 130 have been commercialised.

Another breakthrough was achieved in 2013 when the oil palm genome was successfully decoded. This achievement was published by MPOB in the premier scientific journal, Nature.

Two years later, the genetic mark for the clonal abnormality, known as "mantled" was also discovered by MPOB, which also received prominence on the cover of Nature.

MPOB's biotechnology research has also developed oil palm planting materials, namely the PS1 to PS13 series through its vast collection of mother palms. They possess different traits such as high yield, dwarf, long stalk and richness in Vitamin E tocotrienol.

Scientists at MPOB are continuously working on new technologies, sometimes in collaboration with renowned research institutions worldwide to ensure that the oil palm

industry remains dynamic, generates high-income jobs, entrepreneurship opportunities and better export earnings.

MPOB is also working towards ensuring palm oil is a nutritious and affordable food for all while striving towards a zero-waste industry that is sustainable and well-regulated.

With such significant achievements by MPOB and the roles it plays, Malaysia is now a global R&D centre for oil palm research, particularly in the fields of agronomy, disease management, good agricultural practices, genome, biodiesel, utilisation of palm biomass, food and non-food applications and sustainability standards.

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