

CHAPTER 3

STATEMENT OF NEED

3.1 MALAYSIAN PALM OIL INDUSTRY

The oil palm (*Elaeis guineensis* jacq.) is the world's most efficient oil-bearing crop in terms of land utilization and productivity. A hectare of cultivated oil palm land can supply about ten times more oil than soybean and five times more oil than rapeseed.

The Malaysian palm oil industry is a significant contributor to Malaysia's overall economy, providing both, employment and income from exports. In 2017, the agriculture sector contributed 8.2 per cent or RM96.0 billion to the Gross Domestic Product (GDP). Oil palm was a major contributor to the GDP at 46.6 per cent followed by other agriculture (18.6%), livestock (11.4%), fishing (10.5%), rubber (7.3%) and forestry & logging (5.6%) (Department of Statistics Malaysia, 2018).

About 5.81 million hectares of land has been planted with palm oil producing 19.9 million tonnes of palm oil in 2017. The Malaysian Palm Oil Board (MPOB) expects production to climb to 20.5 million tonnes in 2018 (Malaysian Palm Oil – Performance and Prospects, 2018). Malaysia's palm oil plantations are operated by smallholders as well as large palm oil companies. The industry provides employment to more than half a million people and livelihood to an estimated one million people.

3.2 PROJECT NEED – IMPORTANCE OF PALM OIL TO MALAYSIA

Palm oil is a major agro-industrial commodity and an important source of revenue, foreign exchange and employment in Malaysia (Othman, 2003). The importance of the palm oil trade to the Malaysian economy was affirmed with the founding of the Kuala Lumpur Stock Exchange (KLCE) for price setting, hedging, and disseminating market information to reduce market risk in the trading of palm oil. In addition, the implementation of the Economic Transformation program (ETP) in 2010 gave the oil palm industry a new focus after it was identified as one of the 12 National Key Economic Areas (NKEA) to drive the nation's economy. The palm oil sector NKEA is aimed at improving upstream productivity and increasing downstream expansion, while focusing on the sustainable development of the

oil palm industry. This was affirmed in April 2017 when Parliament issued a resolution promoting the export of certified sustainable palm oil (CSPO) and palm oil products. Voluntary certification schemes already exist, of which the most widespread is the international Roundtable on Sustainable Palm Oil (RSPO) (Choo Yuen May, 2012).

Thus, the oil palm industry in Malaysia is well-regulated with many laws and regulations governing environmental management, forest conservation, and sustainability. These include water management, soil conservation, biological control of pests, and reduction of waste and greenhouse gas (GHG) emissions. In the face of anticipated increase in global demand for palm oil, Malaysia will continue to increase planters' productivity and competitiveness through replacement of unproductive palms with high-yielding hybrids, and replanting on lands owned by independent smallholders (Deepening Malaysia's Palm Oil Advantage, 2010).

This Project is in line with the country's aspiration to be among the worlds' top producer and exporter of sustainable palm oil and palm oil products. The beneficial aspects of this Project include the following:

- The Project is planned to stimulate development and subscribe towards fulfilling national policies under the Eleventh Malaysian Plan (2016-2020) with emphasis to increase productivity through modernization of the agricultural sector (palm oil) supported by strengthening research, innovation and development;
- The Project will support palm oil mill operations and other related downstream industries;
- The Project will provide job opportunities among the communities in Jerantut District (direct impact) i.e. business opportunities and employment in the agriculture sector;
- The Project will stimulate socio economic growth as well as promote the development of supporting amenities and facilities in the district (indirect impact);
- The balance between rural and urban development in the district will be improved. It will promote working skills and reduce potential migration from rural to urban areas; and
- There is a potential for increased economic growth in the area over the long term due to the possible development of related agricultural and agro-based industries locally.

The following paragraphs describes the guiding principles and practices espoused by the Project Developer i.e. Tabung Haji Plantations (THP) in palm oil plantation development and management.

3.3 PAHANG PALM OIL INDUSTRY

The palm oil plantation areas in the states of Malaysia are shown in **Table 3**. Pahang is at second place with a total acreage of 725,239 hectares of palm oil plantations in Peninsular Malaysia. The operators of palm oil plantations in Pahang are largely the smallholders and several large private companies and statutory bodies.

THP Agro Management Sdn Bhd provides management services to the THP Group and plantation companies under Lembaga Tabung Haji. THP is a private company that actively operate palm oil plantations in Pahang.

Table 3.3.1: Oil Palm Planted Area as at December 2017 (Hectares)

STATE	MATURED	%	IMMATURED	%	TOTAL	%
JOHOR	682,624	91.2	66,236	9	748,860	13
KEDAH	82,421	94.2	5,117	6	87,538	2
KELANTAN	118,090	74.6	40,220	25	158,310	3
MELAKA	52,322	91.2	5,050	9	57,372	1
NEGERI SEMBILAN	162,634	88.0	22,181	12	184,815	3
PAHANG	641,876	86.6	99,619	13	741,495	13
PERAK	360,501	88.7	45,968	11	406,469	7
PERLIS	617	93.5	43	7	660	0
PULAU PINANG	12,870	94.9	693	5	13,563	0
SELANGOR	128,058	92.9	9,725	7	137,783	2
TERENGGANU	146,561	85.4	24,987	15	171,548	3
PENINSULAR MALAYSIA	2,388,574	88.2	319,839	12	2,708,413	47
SABAH	1,380,037	89.2	166,867	11	1,546,904	27
SARAWAK	1,342,102	86.3	213,726	14	1,555,828	27
SABAH & SARAWAK	2,722,139	87.7	380,593	12	3,102,732	53
MALAYSIA	5,110,713	87.9	700,432	12	5,811,145	100

Source: MPOB 2017

3.3.1 Tabung Haji Plantation (THP)

THP was incorporated in 1972 (formerly known as Perbadanan Ladang-ladang Tabung Haji Sendirian Berhad) with its first estate being Ladang Sungai Mengah (4,054 ha.) in Selangor. Over the years, THP gradually expanded its land bank and to date, has close to 102,000 ha. over palm oil and operates 32 oil palm estates in its stable. With acquisitions made in recent years, THP targets for significantly higher fresh fruit bunch (FFB) and crude palm oil (CPO) production in the coming years. THP also has over 8,000 ha of land in Kalimantan Timur, Indonesia, marking its' first foray overseas. THP has 6 palm oil mills with a total milling capacity of 240 metric tonnes per hour. THP is listed on the Main Board of Bursa Malaysia Securities Berhad with a market capitalisation of approximately RM0.97 billion as at 31st December 2016.

THP has put in numerous efforts to optimize their plantation processes to minimize cost without sacrificing yield. They took a comprehensive approach ranging from implementing innovative agronomic practices to conducting data analysis to improve plantation performance. Some of the activities that THP has applied are improvements on fertilizers, fruit set and yields.

To mitigate the impact of higher fertilizer costs, they embarked on using site-specific compacted fertilizer formulations in 2016 based on the nutritional needs of the area. To increase oil yield and kernel production, the use of weevils was applied; *Elaeidobius kamerunicus* variety was found to be an efficient insect pollinator for the palm oil tree. To encourage greater weevil population in their plantations, they embarked on a pilot project to construct weevil breeding boxes in the field in one of their plantations in Sarawak. The use of weevils as pollinators is an alternative to the manual pollination approach, which is labour-intensive and costly. The pilot project was successful and forms a key initiative in 2017 in other oil palm plantations.

THP is committed to safeguarding and nurturing the environment by implementing best agricultural and agronomic practices at all times. They have stringent policies and procedures in place to ensure that their plantation activities are sustainable and do not unduly harm the environment. They have standard operating procedures (SOPs) in place on land development and plantation operations which incorporate strict guidelines on zero-burning. This policy is strictly enforced and ingrained throughout all their plantations.

Under THP's Performance Improvement Program (PIP), initiatives have been mapped out to improve operational aspects of the plantation processes, from the plantation all the way to the mills. THP employ innovative agronomic practices that enhance yield and optimize harvesting processes in their plantations, while investing in the modernisation of their mills to boost CPO production. THP have incorporated ample buffer zones and riparian reserves within their plantations to ensure that they preserve the harmony between the plantation and the environment that they operate in. They also consistently and constantly emphasize the adaptation of Good Agricultural Practices (GAP) throughout their operations to ensure that they maintain a healthy environment in all their plantations.

Geo-Information System (GIS) has been applied by THP since 2008. GIS differs from traditional methods to provide alternative tools which can monitor and analyse data in plantation planning. The essential parts of GIS implementation to plantation management include mapping for plantation boundaries, divisions, blocks (planting), infrastructures (roads, bridges, and buildings), river & drainage system, buffer zone, steep areas, soil series, contour etc. THP deploys cutting-edge technology to enable precise agricultural management planning and practice. The use of Unmanned Aerial Vehicles (UAV) allows them to better plan and run their plantations to minimize environmental damage. By incorporating UAV technology, aerial images derived from the UAV can be used to identify the number of palm oil stands, vacant points, planted and unplanted areas, encroachment area, environmental management, monitoring (visualisation) for land work and biodiversity. Following mapping of the plantation, data can be analysed to quantify plantation resources. The data can be categorised into year of planting, age, type of crop, size of planted and unplanted area, production record by block and costs per hectare.

To protect the environment, THP tailor fertilizer use to each site to ensure that the soil receives the needed nutrition. It optimizes the use of fertilizers and minimizes the amount of fertilizer leached into the ecosystem. THP has adopted the use of bio-pesticides and bio-control agents such as barn owls and beneficial plants to control pests in their plantations, which are more environmental friendly.

THP are also committed to the health and safety of their workers. To ensure workers' health, safety and well-being, they have instituted appropriate policies, training and workshops for the workers. All workers are provided training on the proper use of PPE and agricultural equipment. Health and Safety policies are strict enforced. THP also conduct risk assessments regularly to ensure that workers are protected from injury in the workplace. Fourteen Chemical Health Risk Assessments had been conducted in 2016 in their mills and plantations

to ensure that the health of workers are not jeopardised by chemical exposure. 'Healthcare for All' guides their efforts to establish clinics and emergency medical stations at their plantations located in remote areas where access to medical facilities is limited. Work-Life Balance is essential to employee morale and health and they nurture this balance by creating avenues for social interaction and through workshops focused on personal and spiritual development.

THP groups' commitment to the communities is a vital part of their corporate initiative. It is their continuing quest to promote healthy, high functioning communities especially in locations where their plantations and mills reside. Operations of THP provide opportunity for jobs, steady livelihood and income generation to the local people. They also assist in improving the living condition, power supply and access to education.

THP's Corporate Responsibility (CR) activities also emphasize on training of unemployed local graduates under their management trainee programme, 'Program Pelatih Pengurusan', and enhance the value of education by adopting schools located within the perimeter of their plantations known as 'Program PINTAR' for six years running.

In 2016, THP adopted SK Ladang Kota Bahagia in Keratong, Pahang as the beneficiary of their PINTAR initiative. The school is selected because of its proximity to their plantation and therefore is attended by children of their plantation employees and local community. Through the programme, THP helped 34 students of standard 6 with activities such as 'Kempen Jaya UPSR', from August to September. Both campaigns are aimed at helping those students make better prepare for the UPSR exams. In addition, THP also provided financial support and assistance to acquire reading materials. In 2016, THP sponsored 2,320 copies of Utusan Tabloid Tutor UPSR and English, which are circulated among the students of standard 6. The weekly education pull-out is designed to be an additional teaching aid and helped promoted learning in a fun manner.

In terms of community engagement, THP pledged their support and commitment to the Government's Transformation Programme that has identified six National Key Result Areas aspirations. THP Groups' concentration is on the eradication of poverty and improving rural infrastructure, which will be implemented by enhancing their CR practices to the communities near their plantations.

THP play a proactive role in helping develop entrepreneurship amongst community members. THP Vendor Development Initiative (VDI) encourages community members to start businesses to meet THP's needs. Their presence in the community ensures a steady demand for products, which translates into a steady stream of income to the community. THP commitment to entrepreneurship development also extends to the Bumiputera community, which sees THP actively encouraging the participation of Bumiputera contractors and suppliers in the VDI. This is in line with the national agenda to stimulate the economic growth of the Bumiputera community in Malaysia. Out of the 706 contractors and vendors registered under the VDI as at the end of 2016, 41% were Bumiputera businesses with total contracts worth RM20, 121, 285 signed with THP.

THP Group's business zakat (tithe) pay-out increased for each state throughout the year. In Pahang, the zakat is paid out to the Pahang Islamic Religious Councils and State Zakat Collection Centre.