



Best Practices and Challenges of Farm Tourism in Malaysia

Nor Ziana Mohd Uzir

Asset Management and Development Centre, Malaysian Agricultural Research and Development Institute (MARDI)

Corresponding e-mail: nziana@mardi.gov.my

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ABSTRACT

Farm tourism is mainly related to agriculture and its allied sector consisting of fisheries, livestock and the agro-based industry in Malaysia. It offers opportunities for visitors to experience various agricultural activities as the country has plenty of agricultural resources for utilization. The Ministry of Agriculture and Food Security (MAFS) is responsible for the development of agricultural tourism activities in Malaysia, while the Ministry of Tourism, Arts and Culture (MOTAC) is an authority for Malaysian tourism promotional activities as a whole. The Malaysian Agricultural Research and Development Institute (MARDI), a statutory body under the roof of MAFS, is mandated for conducting research on agriculture, food and agro-based industries and transferring agrotechnologies in multidisciplinary prospects with the vision of leading in agro-food research and innovations. The establishment of the MARDI Agrotechnology Park has become MARDI's platforms of farm tourism centers to showcase agricultural technologies and the process of dissemination of agrotechnology transfer for public visits encompasses with technology, innovation, conservation, education and recreation components. This paper focuses on the best practices of farm tourism activities on the economic and agricultural literacy perspectives of MARDI Cameron Highlands Agrotechnology Park based on its content of promoting highland agricultural technologies of fruits and flowering plants and MARDI Langkawi Agrotechnology Park for its farm tourism activities on tropical fruit plantation technologies and innovations. The paper also highlights the challenges on farm tourism activities in Cameron Highlands and Langkawi in general. The government's initiatives programs suggest strategies to be implemented by MARDI to ensure the sustainability of MARDI Agrotechnology Park in farm tourism industry in Malaysia towards strengthening the agricultural sector as one of the main contributors to the country's economic growth.

Keywords: agrotechnology, agrotourism, best practices, MARDI

INTRODUCTION

Over the past few decades, farm tourism has become increasingly popular all over the world. Visitors have the opportunities to experience agricultural activities engaged in rural areas. This industry allows farmers to diversify their agricultural activities into business and income generation. Visitors' attractions on farm tourism activities differ within the countries in terms of its geographical, economic, cultural, and social aspects. Thus, this paper aims to discuss the best practices and challenges of the MARDI Agrotechnology Park in the economical and agricultural literacy perspectives of farm tourism industry in Malaysia.

Farm tourism in Malaysia

The agriculture sector plays an important role in the growth of Malaysia's economy. Farm tourism is one of the sub-sectors in the agriculture sector as strategized in the National Agrofood Policy (NAP 2011-2020) as tourism industry is one of the most important industries to contribute to the sustainability of the country's Gross Domestic Product (GDP). Farm tourism, also defined as agrotourism in the Malaysian context, refers to the full utilization of the farm setting and its environment that is associated with cultural and heritage values to strengthen the uniqueness of the Malaysian rural community, with hospitality in promoting tourism activities (Mansor, N *et al*, 2015).

The NAP 2011-2020 classifies types of farm tourism products into seven categories which include agro-heritage based, agro-farm based, agricultural product trade such as handicrafts, culinary, cultural, ethnicity based, agro-food based, health and wellness based and mice (meetings, incentives, conventions, exhibitions). The NAP 2011-2020 also anticipated increase in the tourism's industry contributions by 117%, with a revenue of RM115 billion (USD27.85 billion) and providing 2 million job opportunities in 2015. Thus, the projection of tourist arrivals were expected to escalate up to 6 million tourist by 2020. (Figure 1).

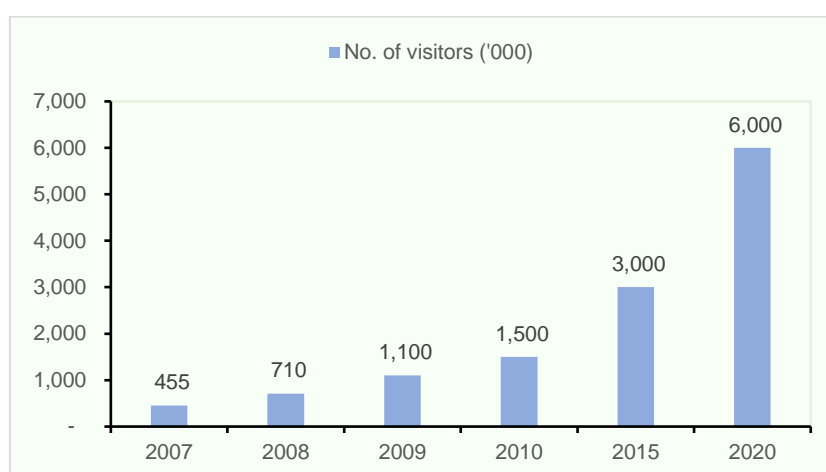


Figure 1. Projection of tourist arrivals to Malaysia from 2007 to 2020.

Source: National Agrofood Policy (NAP 2011-2020)

The scenario of post pandemic tourism industry in Malaysia

The world's tourism industry hit the most due to the Movement Control Order (MCO) restrictions in the first quarter of 2020. However, the total number of tourist arrivals rose positively in 2022. Based on the Malaysian Bureau of Labour Statistics, the implementation of the National Recovery Plan (NRP) played a crucial impact in the country's economy. The 80% of fully vaccinated Malaysian population has led Malaysia to 'Transition to Endemic' phase on 1 April 2022. This endemic phase allowed Malaysia to manage all restrictions without physical distancing. This convinced them to reopen its international borders, increase demand for goods and services and create more job openings (DOSM, 2022). Figure 2 shows the number of tourists arrivals from 2019 to 2022.

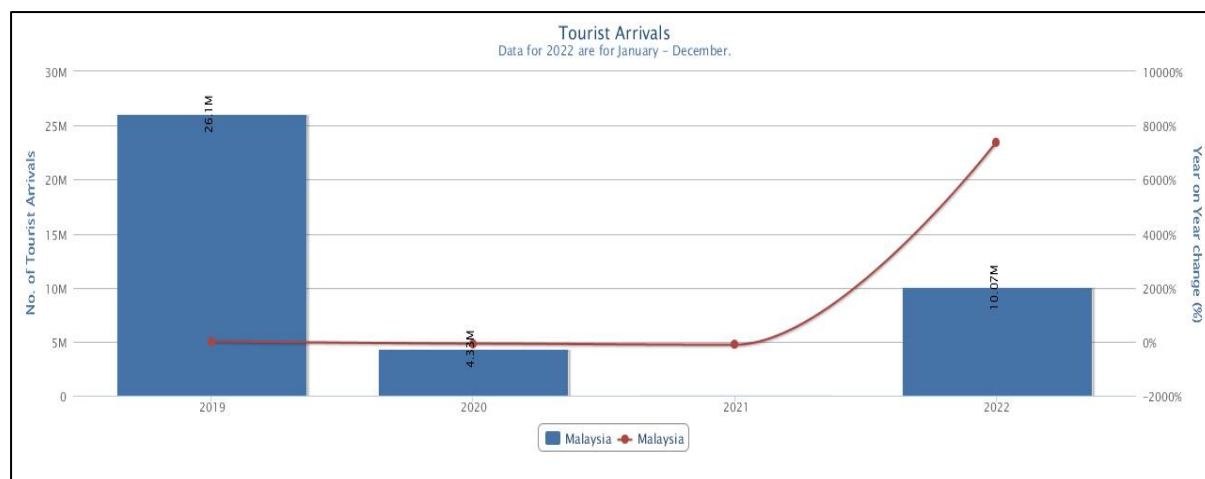


Figure 2. Number of tourist arrivals in Malaysia from 2019 - 2022

Source: Mytourismdata.gov.my

MALAYSIA'S NATIONAL POLICY RELATED TO FARM TOURISM

In Malaysia, the Ministry of Agriculture and Food Security (MAFS) is working together with the Ministry of Tourism, Arts and Culture (MOTAC) in the development of the farm tourism industry. MAFS is responsible for the tourism sub-sector based on agricultural activities which includes four main branches viz., agriculture, fisheries, animal husbandry and agro-based industries that can be developed and harnessed in the context of direct tourism, which can have a multiplier effect on the farming community and the country's agro-product chain, thus contributing to the increase in farmers' income and boost the Gross Domestic Product (GDP) of the country.

The National Agrofood Policy 2021-2030 (NAP2.0)

Previous studies showed farm tourism has had significant impacts on the economy, including its local businesses, employment and tax revenues (Evgrafova, 2021; Schilling, B J *et al.*, 2012). NAP2.0 focuses on strengthening multisectoral development agendas holistically formulated to continue the first National Agrofood Policy (NAP) for the period 2011-2020 broadly aiming at safeguarding the food security through the transformation of the national food system. The main transformation concerns addressing food security and safety to ensure availability, affordability and accessibility; to ensure the competitiveness and sustainability of the agro-food industry and to increase the income level of agropreneurs (MAFS, 2021). In the context of farm tourism, the National Agrofood Policy, 2021-2030 (NAP2.0) aims to establish the sustainability of the farm tourism industry initiatives such as smart farming, addressing climate issues, enhancing the supply value chain in agro-food products and encouraging public and private sectors participation.

Based on the 12th Malaysia Plan (2021-2025), the Food and Agro based Industry Division (IMAT) under MAFS allocated RM30 million and the Rolling Plan 1 (RP1) fraction is RM4 million for the Grant of Building and Upgrading of Infrastructure and Quality of Service Project at the Agrotourism Centre within three (3) scopes; build and upgrade infrastructure and quality of services in farm tourism centres; farm tourism promotion; and human capital development. In 2021, 42 farm tourism centers received a total fund of RM3.89 million (USD0.9 million) and 40 farm tourism centers received a total of RM4.00 million (USD0.93 million) worth of grants in 2022. A total of RM15.08 million (USD3.49 million) was harnessed by 140 farm tourism centers from public and private operators in the 11th Malaysia Plan (MAFS, 2022).

The implementation of the program assigned by five (5) Departments and seven (7) Agencies under MAFS, namely the Department of Agriculture Malaysia (DOA), DOA Sarawak, DOA Sabah, Department of Fisheries Malaysia (DOF), Department of Veterinary Services (DVS), Federal Agricultural Marketing Authority (FAMA), Malaysian Agricultural Research and Development Institute (MARDI), Farmers' Organisation Authority (LPP), Malaysian Pineapple Industry Board (MPIB), Malaysian Fisheries Development Authority (LKIM), Muda Agricultural Development Authority (MADA) and Kemubu Agricultural Development Authority (KADA) (MAFS, 2022). The

Departments/Agencies will reach out to the farm tourism entrepreneurs and promote the Grant Programme to the qualified entrepreneurs.

MAFS also organizes the Malaysia Agriculture, Horticulture and Agrotourism Show (MAHA), Malaysia's leading agricultural show to the public biennial event to showcase and promote agriculture and agro-based industries. It is an agro fair showcasing a set of national agriculture sectors including Malaysia's State pavilion, agro bazaar, agrotourism, cultural performance, livestock, animal and fish displays, Malaysia's most popular dishes and business networking opportunities. Participants are welcome nationwide and is held in the Malaysia Agro Exposition Park, Serdang (MAEPS). The last event was held in 2022 with the total number of 1.4 million visitors with RM260 million (USD60.19 million) in total sales (MAHA 2022 Secretariat, 2022).

The National Tourism Policy 2020-2030

The government launched the National Tourism Policy 2020-2030 for the sustainability of Malaysia's tourism industry. The aim is to keep Malaysia in the top 10 of the most visited countries as there are signs of the inability of Malaysia's tourism industry to harness its tourism products compared to other Asian countries.

According to the Tourism Malaysia Strategic Plan 2022-2026, MOTAC initiated six various strategies as recovery plan to heal Malaysia's tourism industry from the global COVID-19 pandemic. The strategies are to boost domestic tourism, to forge smart partnerships, to enhance tourism promotion (online & offline), to optimize strategic communication/media engagement, to implement travel bubble and to undertake strategic transformation (Tourism Malaysia, 2021).

THE ESTABLISHMENT OF THE MARDI AGROTECHNOLOGY PARK

The amendment in the MARDI Act in 1990 allows MARDI to be involved in the commercialization activities which developed the establishment of the MARDITech Corporation Sdn. Bhd. in 1992. Further amendment of the MARDI Act was made in 2002 which grants MARDI to expand more commercialization opportunities and potentials. Since then, MARDI aims to cultivate resourceful and viable technologies and educate and transfer technologies to the stakeholders, particularly clients involved in the development of food and agriculture sectors in many initiatives and strategies.

Referring to the policy mandated by the government, MARDI has to initiate strategies on educating the availability of agricultural products that can be harnessed by the public whether by individuals or collectively. The combination of livestock, farm and agriculture experience with tourism activities to capture potential interest from local and foreign visitors has been practiced in many countries all over the world. The idea of developing the MARDI Agrotechnology Park began when MARDI took the initiative to promote and transfer MARDI research technology and to increase MARDI's visibility to the target group through a farm tourism approach. There is a total number of 32 MARDI research stations nationwide. Therefore, MARDI took this opportunity by applying the farm tourism concept in every MARDI Agrotechnology Park with food and agriculture technologies as major showcases for the public.

Currently, the MARDI Agrotechnology Park is one of MARDI's platforms to showcase agricultural technologies for public visits. MARDI Agrotechnology Park encompasses technology, innovation, conservation, education and recreation (T.I.C.E.R) elements in showcasing technologies in the food and agriculture sectors. There are nine of MARDI's research stations identified to be upgraded as MARDI Agrotechnology Park including Cameron Highlands, Langkawi, Cherating, Kuala Kangsar, Kuala Linggi, Tanjung Karang and Jeram Pasu. Contrary to other commercial farm tourism centers and to avoid misconceptions, the MARDI Agrotechnology Park is established not just as a farm tourism center but also serves as an agricultural entrepreneurs' clinic and kiosks. Figure 3 shows the year of the establishment of the MARDI Agrotechnology Parks from 2003 to 2019.

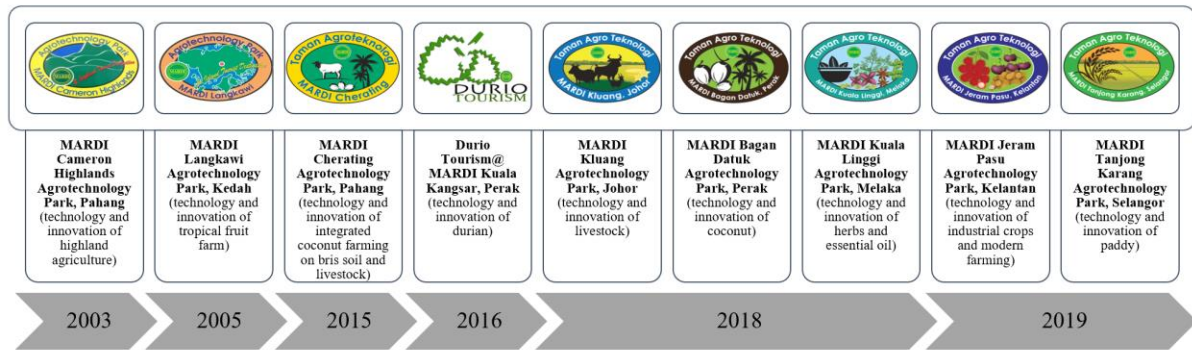


Figure 3. Year of establishment of MARDI Agrotechnology Parks (MARDI, 2020)

Development of MARDI Cameron Highlands Agrotechnology Park, Pahang (TATMCH)

The MARDI Cameron Highlands, Pahang was the first MARDI research station transformed into MARDI Cameron Highlands Agrotechnology Park (TATMCH) on 14th June 2003, officiated by the late Sultan of Pahang Sultan Ahmad Shah. The existence of the tea plantation since 1927, together with the oldest tea processing plant in Malaysia since 1935 which has a total width of 11.52 hectares makes TATMCH one of the valuable treasures and one of the must-visit locations in Cameron Highlands, Pahang.

TATMCH promotes highland agricultural technologies in the form of English-garden, herbs-garden, orchid-garden, kitchen-garden, butterfly-garden and petting zoo (rabbit). TATMCH also showcases technologies in planting various temperate fruit plants such as apples, pears, grapes and strawberries, as well as popular temperate flower plants such as chrysanthemums, carnations and roses. TATMCH has also been tagged as MARDI Centre of Excellence (COE) in highland agricultural research in line with the theme of highland sustainable agriculture center.



Figure 4. English garden tour, commercial plot tour are some of the activities offered at MARDI Cameron Highlands Agrotechnology Park (MARDI, 2022)

Development of MARDI Langkawi Agrotechnology Park, Kedah (TATML)

In July 2005, MARDI Langkawi Agrotechnology Park (TATML) was launched by the former Deputy Minister of Agriculture and Agro Based Industry, YB Dato' Seri Haji Mohd Shariff Omar. Using the theme of tropical fruits plantation technology and innovation with total park width 27.39 hectares, TATML captivates many visitors from locals and international tourists with its collection of more than 20 types of seasonal and non-seasonal tropical fruits, environmentally controlled vegetable farms and sustained natural tropical forests. Differing from TATMCH, TATML offers more ecotourism activities such as camping, farm tours, fruit buffets and team building programs.

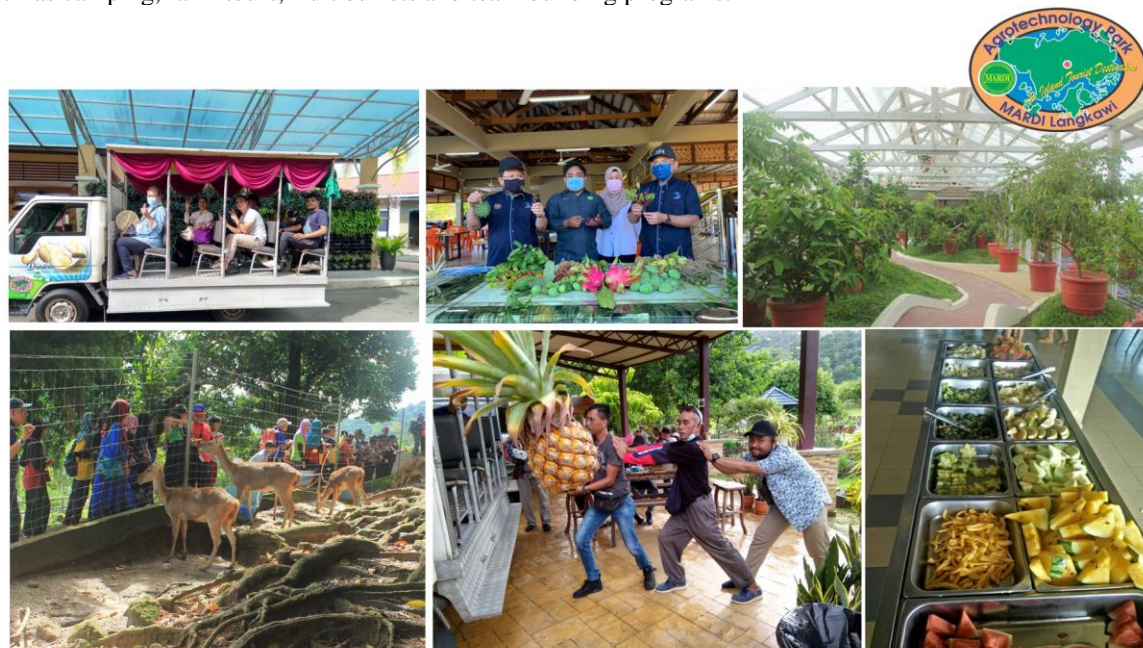


Figure 5. Farm tour, model of urban farming and tropical fruit buffet offered at MARDI Langkawi Agrotechnology Park (MARDI, 2022)

Number of visitors

Although run by the government's authorities under MARDI, the operating business in TATMCH and TATML is still affected by the COVID-19 pandemic. TATMCH is still dominated by domestic visitors as it is located nearest to the Klang Valley. TATML has been affected as most of the visitors to the Langkawi Island, Kedah itself are international visitors. TATMCH shows consistent growth of total number of visitors since 2019 but dropped in 2021. TATML only managed to increase its visitors after the opening of international borders in 2022. Figure 6 indicates details of TATMCH and TATML number of visitors between year 2019 and 2022.

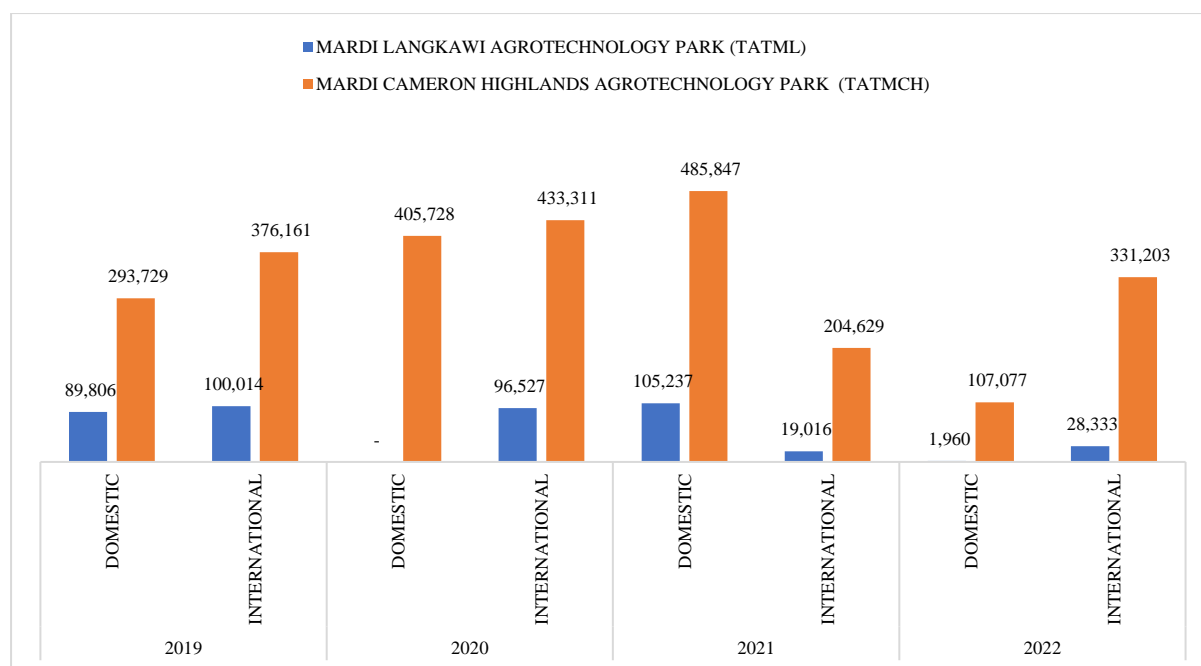


Figure 6. The total number of visitors of TATML and TATMCH in the year of 2019-2022 (MARDI, 2020-2023)

Reasons for visit

There are many studies conducted on visitors' motivation to visit Cameron Highlands and Langkawi. Cameron highlands' demographic area is one of the reasons for the increasing number of visitors. It is known for its climate vegetation, fauna and portraying beautiful landscapes as the temperatures range between 18 and 25°C during the day as it situated at the Titiwangsa Mountain Range with 1,500 meters from the sea level (Syamsul, M, & S, 2014). Cameron Highlands is also popular for its English village charms influenced by British surveyor, William Cameron who developed the highland during the World War II (Mansor, N *et al*, 2015). The uniqueness of Cactus Valley, Boh tea farm, strawberry farms, vegetable farms, nurseries, honey outlets etc, are the reasons that people are visiting Cameron Highlands. (Hoon Leh, O L *et al*, 2017).

As for Langkawi, (Hamdan & Yusof, 2014) quoted Tun Mahathir's statement that "Langkawi is suitable as an international sporting destination as it has numerous facilities" such as Le Tour de Langkawi, Langkawi International Formula Jet Ski Super Series, Asian Sailing Championship, and Ironman Malaysia Triathlon. According to Mohd Salleh, *et al*, 2014, Langkawi is one of the most visited destinations because of its natural and man-made tourism products transformations especially after it was declared as duty-free island by the Malaysian Government in 1987. Mohd Wahid, S D *et al*, 2016 concluded that most visitors came to Langkawi for leisure to enjoy its various attractive destinations and Jonghyun Park, 2019 confirmed most repeated visitors came to Langkawi for its economic and nature aspect.

Best practices and challenges

On the economic perspectives, farm tourism activities showed significant evidences to the incomes of MARDI Cameron Highlands Agrotechnology Park and MARDI Langkawi Agrotechnology Park. According to study done by Ciolac, R *et al*, 2019, farm tourism demonstrates economic benefits to the authorities and local communities. Both are able to be financially independent and manage to offer employment opportunities to the locals. Figure 7 shows a total income of both Agrotechnology Parks in the year of 2019-2022. The declining number of visitors in Langkawi has been caused by the close international borders restrictions during the COVID-19 pandemic.

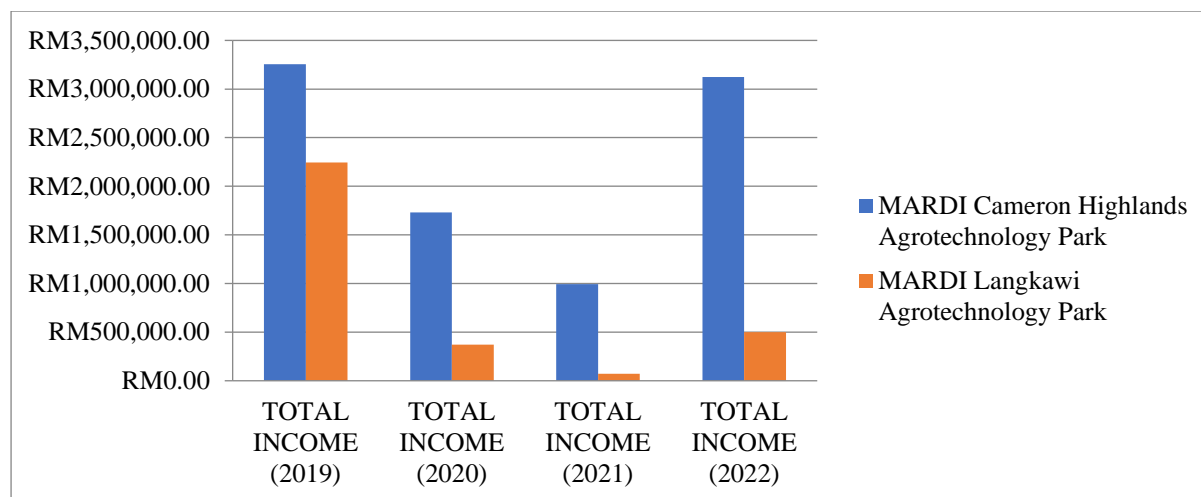


Figure 7. Total income of MARDI Cameron Highlands Agrotechnology Park and MARDI Langkawi Agrotechnology Park in the year of 2019-2022 (MARDI, 2020-2023)

Farm tourism may be an appropriate platform of experiencing agricultural literacy (Brune, Sara *et al.*, 2018). On the agricultural literacy perspectives, MARDI Cameron Highlands Agrotechnology Park and MARDI Langkawi Agrotechnology Park practices the best through the T.I.C.E.R components. MARDI Agrotechnology Parks offer farm tourism packages to be explored by the visitors. MARDI Cameron Highlands Agrotechnology Park offers educational package on temperate plants, vegetables and flowers, visits to one of the oldest tea factories in Malaysia, accommodation of English cottage homestay and apartments, seasonal tulips plantation and facilities for meetings and trainings. MARDI Cameron Highlands Agrotechnology Park offers farm tours, tropical fruit buffets, urban farming models and facilities for meetings and trainings. However, further research has to be conducted on the effectiveness of these packages on the impact of agricultural literacy.

MARDI Cameron Highlands Agrotechnology Park recently won the Gold Award Agro-tourism Initiative Programme by the Malaysian Tourism Council (MTC) in 2018, while MARDI Langkawi Agrotechnology Park won the Malaysia Tourism Quality Assurance (MyTQA) twice in the 2018-2020 and 2021-2024 awarded by MOTAC.

In general, most farm tourism activities faced similar challenges in Malaysia. Environmental issues are one of the main issues on farm tourism (Barrow, C J *et al.*, 2009; Samat, Narimah & Harun, Norhidayah, 2013). The study conducted by (Man N & Abdul Harith Aspany H, 2020) suggests farm tourism activities should be suitable for all age ranges, lack of information and publicity on farm tourism itself. Environmental protection is one of the most highlighted issues at Cameron Highlands. (Mansor, N; Mat Rashid, K; Mohamad, Z; Abdullah, Z;, 2015) argued that facilities are still the main issues for farm tourism activities in Cameron Highlands. Social impacts on urbanization and infrastructure development are found by (Hoon Leh, O L *et al.*, 2017; Jaunis, O; Majiol, A R; Kodoh, J, 2022). (Jaunis, O; Majiol, A R; Kodoh, J, 2022) further suggests that financial, technical and human resources are the challenges in farm tourism business.

CONCLUSION AND RECOMMENDATIONS

This paper helped to illustrate the potential of MARDI Agrotechnology Parks in the sustainability of the farm tourism industry. MARDI Agrotechnology Park should contribute in the execution of the government initiatives to harness the nation's farm tourism and agriculture. Although many studies have been discussed on the best practices of farm tourism worldwide, limited research found on the best practices of farm tourism at MARDI Agrotechnology Park. Thus, MARDI should take the opportunities to strategize on engaging smart partnerships with other public and private sectors, improve staff's hospitality services and product knowledge, improve promotions and marketing strategies on potential products and activities in digital platforms, review and rebrand the existing agro-food products and activities and finally strengthen the support in terms of financial, labor and related resources to become the role model of farm tourism centers.

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AUTHORS' CONTRIBUTIONS

The author confirms sole responsibility for the entire content of this manuscript and approved its submission.

COMPETING INTERESTS

The author states no conflict of interest.