



The Sustainable Palm Oil Policies in Malaysia

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Abstract

In Malaysia, oil palm production serves as a leading sector which contributed a lot to the development of Malaysian economy as a great driving force for the country's agro-industry. Malaysia has also received global recognition for resources allocation among its citizens and poverty alleviation within the country. It flourishes development of the agricultural sector, it increases government and training schemes. In Malaysia, palm oil has an important contribution to the economic growth, generation of revenues for workers and the government, employment chances in rural areas, improving infrastructure which includes facilities of health and education. Malaysia achieved all these due to good and sustainable policies. The objective of this paper is to show the sustainable Malaysian policies on palm oil, the research is qualitative, it has used document analysis and semi-structured interview, and used inductive thematic analysis to analyse the interview with help of Atlas ti 8 software, the finds of the paper are the sustainable Malaysian policies on palm oil. In conclusion, this paper shows the policies adopted by Malaysia on palm oil which lead to its sustainability.

Keywords: Oil Palm, Palm Oil, Sustainable Malaysian policies on palm oil

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INTRODUCTION

Oil palm is originally from West Africa brought to Malaysia in the late 19th century. In Africa, the extracted oil from the fruit of oil palm, was traditionally being prepared and used for food purpose. Therefore, the oil palm replaced animal fats including butter which is being used in baking goods, cosmetics and soap. It also serves as a source of biodiesel. Most of the products parceled in a mall or supermarkets contained palm oil. Palm oil is good for human body health, and has more advantages than other vegetable oil, after palm oil, soybean is the second world most consuming vegetable oil. Oil palm tree is cheap if compared to other vegetable oils, it produces the same amount of oil with one portion out of ten size of land, one portion out of seven size of land, one portion out of fourteenth amount of pesticide, and one portion out of ten capacity of energy. The palm oil consumption increased to 8kg per person globally without decrease. The development of oil palm started in Africa and later shifted to Southeast Asia. According to statistics from FAO, Indonesia produces 53 per cent of world production, while Malaysia produces 29 per cent, Thailand 4 per cent, Nigeria 2 per cent and finally Ecuador 1 per cent. Palm oil is good in frying and it resists oxidation (Russell, 2018).

PROBLEM STATEMENT

The problem that this paper tries to solve is: what are the policies that led to Malaysian sustainability on palm oil? Some countries like Nigeria in 1960s, it was the largest palm oil producing country, but it failed due to the lack of sustainable

policies. Unlike in Malaysia whereby all the policies sustained and worked accordingly. The palm oil sector rose as the main source of income, which generates revenue, promotes economic development and alleviates poverty (Ismail, 2013). The manufacture of palm oil in the global context enlarged in 2009 to 45.1 million tones if compared to 1980, as a result of supplying to key markets in the China, E.U, Pakistan and India. Indonesia and Malaysia accounted for the 85% of the palm oil world production. In some countries like; Ecuador, Thailand, Papua New Guinea and Columbia, important growths in production of palm oil were also realized. In 2009, these countries produced 6.6% of the entire global production (Bek-Nelson, 2010). The main purpose of this paper is to explore the policies which led to Malaysian sustainability on palm oil.

LITERATURE REVIEW

The development of National and International Policies in Malaysia and Indonesia on sustainable palm oil, indicated more positive changes and strategies on sustainable expansion of oil palm production. These policies allowed the industries to expand their plantations on degraded areas or the areas which were previously converted. The National Forestry Act (1984) was established in Malaysia, this led the government formulated policies to conserve forest reserves and protect forest estates (Government of Malaysia, 2014a). The National Commodities Policy (NCP) 2011-2020 was formulated to guide the Malaysian palm oil industry, to predict the expansion of oil palm areas which were implanted from

2011 to 2020 and control the annual increasing rate at 1.6% (Government of Malaysia, 2014b). The Sime Darby became the major producer of palm oil in Malaysia in 2008. The company formulated a policy to prevent the expansion of new plantation on deep peat. The policy was later in 2013 applied on the entire new expansion on peat regardless of peat depth (Sime Darby, 2016). The Malaysian Ministry of Plantations and Commodities was seconded by the Sarawak Oil Palm Planters Owners Association (SOPPOA) on the statement that, the palm oil boycott which came from peat soil, this boycott was viewed as 'inhumane and goes against any policy for the wellbeing of people to elevate themselves from poverty, especially rural native communities' (Malaysian Palm Oil Council [MPOC], 2014).

The National Policy on the Environment

The Malaysian National Policy on the Environment is a policy which was formulated in 2002 to integrate the three essentials of sustainable development which includes: economic, social and cultural development. This policy was meant to conserve the environment and improve the Malaysians life quality economically, socially, culturally and environmentally for sustainable development. This policy has eight inter-related components to achieve the goals of economic development through the improvement of the environment. The components are: '(a) Stewardship of the Environment (b) Conservation of the Nature Vitality and Diversity (c) Continuous Improvement in the Quality of the Environment (d) Sustainable Use of Natural Resources (e) Integrated Decision-making (f) Role of the Private Sector (g) Commitment and Accountability (h) Active Participation in the International Community' (Malaysian Ministry of Natural Resources and Environment, 2010).

The National Biofuel Policy

The National Biofuel Policy was a policy formulated to serve as one among the five Malaysian energy sources. This policy was meant to enhance the well-being of Malaysians and the peoples' prosperity. In addition, it was to reduce the Malaysian dependency on and consumption of fossil fuels, to promote palm oil demand nationally and internationally, and stabilize its price (Malaysian Ministry of Plantation Industries and Commodities, 2006).

The National Policy on Biological Diversity 2016-2025

The National Policy on Biological Diversity 2016-2025 is a Malaysian policy formulated to direct and structure the procedure for conserving biodiversity for sustainable development and to solve the complicated challenges facing the biodiversity. This policy serves as a plan for Malaysian response to the agreement on Biological Diversity 2011-2020. The policy was empowered to achieve major five objectives which are: to reduce putting pressure on biodiversity, to protect species and genetic diversity, to safeguard ecosystems, to ensure fair sharing of biodiversity benefits, and build capability for all shareholders (Malaysian Ministry of Natural Resources and Environment, 2012). These different policies mentioned above are the policies that supported the major Malaysian sustainable policies. The main objective of this paper, is to explore the policies adopted by Malaysia on palm oil which led to its sustainability. This paper tries to bridge the gap and add to the body of knowledge so as to explore these sustainable Malaysian policies on palm oil.

RESEARCH METHODOLOGY

This part explains the research methodology used to obtain data, and how the data were analysed. According to Creswell, research generally conducted to develop appropriate and accurate assertions that can aid to explain the situation (Creswell, 2012). This study employs qualitative research method to understand the research problem. Qualitative research method of data analysis is to systematically research into the nature by using explanatory and realistic approaches (Zhang & Wildemuth, 2009). It used qualitative document analysis which largely relies on how clearly explain, analyse and make a good conclusion (Manheim et al., 2002).

This research paper relied on primary and secondary data, whereby the primary data was collected from interview and the secondary data from books, journals, dissertations, newspapers, magazines, seminar papers, and articles. The primary data was collected using qualitative interview in which standardised semi-structured (open-ended) interview technique was adopted, the interviewees were asked based on this. The interview was based on face-to-face. Three participants were selected from Malaysia to provide diverse views on this paper, the research is non-probability which is purposive sampling (Creswell, 2012). This paper employs inductive thematic analysis to analyse the data from the interview. Each of the interview conducted was coded immediately after it took place. The data were analysed based on the participants' information, and were critically interpreted by the researcher critically (Cohen, 2007). The data was analysed via the steps of data analysis which are: i. Data editing, ii. Data coding, and iii. Data entry. The researcher used Atlas.ti software in this paper. Zhang and Wildemuth (2009) stated that, Atlas ti is being used by a researcher to analyse a qualitative research, organise, manage and code a qualitative data efficiently.

Facts About Oil Palm Tree

The oil palm tree requires certain conditions to grow such as; heavy raining, warm temperature, and sunshine. The equator brings a frequent supply of sunshine and a warm climate. Harmoniously, in Southeast Asia, a sufficient quantity of raining is available especially in Malaysia and Indonesia, and tropical forest of West Africa especially Nigeria (Green Palm, 2016).

The Yield of Palm Oil

Palm oil is a vegetable oil that has value in the world over other vegetable oils, it is more economic and profitable than other vegetable oils. Per hectare in Malaysia, palm trees from 145 to 160 are implanted. Palm kernel 0.5 tonnes and crude palm oil 3.9 is yielded by one hectare of oil palm tree each year. Which is totaled up to palm oil products aggregate of 4.4 tonnes for each hectare in each year in terms of industrial average. In terms of comparative analysis, the rapeseed one hectare yields 1.33 tonnes, sunflower one hectare yields 0.86 tonnes and soyabean one hectare yields 0.52 tonnes each year (Palm Oil Research, 2014).

The Importance of Palm Oil for Socio-economic Development

Much emphasis needs to be considered when analyzing the socio-economic influence of palm oil. Initially, the growth of Malaysian economy is considerably being contributed by palm oil in terms of employing people in rural areas, improving their

infrastructural facilities which includes their health facilities and education, as well as revenue generation for the benefit of government and employees. It raises credits for government, training arrangements and it develops agricultural sector. The small holder structure is developed by their palm oil production of 40% in Malaysia and Indonesia (Knoke & Inkermann, 2015).

The Importance of Palm Oil for Health

The significant global demand of palm oil by the people for consumption in their food has increased. Palm oil is applied in making of foodstuffs, while palm kernel oil is applied in the making of non-foodstuffs as raw material which includes cosmetics, toiletries and soaps. Oil World affirms that, in 2015, 202 million tonnes of fats and oils were consumed globally, it is estimated based on annual per capita of average consumed of 28kg. There is a composition of chemical in palm oil which is special, and it has advantages over other vegetable oils if compared. Palm oil does not require any chemical hard-boiling or hydrogenating to be solid. Moreover, the palm oil that has been refined is creamy, it has no taste, it is not easily rancid, it is heat-stable but with effective cooling and longer lasting. Due to these qualities, palm oil became the most preferred vegetable oil which is being applied to make all bakery products, ice-cream, chocolate etc. (Malaysian-German Chamber of Commerce and Industry (MGCC) (2017).

Advantages of being healthy increases as a result of high content of palm oil vitamin. Human body needs Vitamin A and E to be healthy and be functioning as required, but all these riches are contained in palm oil. The high Tocotrienols and tocopherols from vitamin E of palm oil, reduce the level of bad cholesterol in human body and brain. In a human body, carotenoids can convert to Vitamin A if there is a need after it is stored in the body, Vitamin A is sourced from the content of high carotenoids. Blood cells is related to Vitamin A for the metabolism of body, the Vitamin A is good for skin, and is good for the functioning of eyesight. Immune system and body tissues need Vitamin A so as to function effectively. There is an abundance of carrots and carotenoids in red palm oil. This Vitamin A has a value more than palm oil, especially when the price of palm oil went down in the past (Malaysian-German Chamber of Commerce and Industry (MGCC) (2017).

FINDINGS AND DISCUSSIONS

Sustained Malaysian Policies on Palm Oil First Industrial Master Plan (IMP1)

As result of implementation of Malaysian Industrial Master Plan (IMP), the different government policies emerged on the upstream and downstream processing of oil palm, these policies that were formulated and implemented, obtained supports from government based on various sustainable government policies (Rasiah and Shahrin, 2006). The launching of the First Industrial Master Plan (IMP1) started in 1986 to provide a developmental structure of manufacturing sector that is a broad-based in Malaysia. IMP1 was planned to shift from primary products of agricultural sector to the more of industrial sector. IMP1 itemized twelve sub-sectors of industrial part as part of palm oil sub-sectors to be developed (MIER, 2006). IMP1 gave much emphasis to rationalise the fractionating and refining of palm oil to improve the different sectors of the value chain as well as competing in the global markets (Rasiah and Shahrin, 2006).

The Second Industrial Master Plan (IMP2)

In 1996, the launch of Second Industrial Master Plan was initiated to cover from 1996-2005 for developing the sector and to enhance the industrial linkages, increase productivity and value-added activities as well as sufficient sustainability in terms of imports of raw material (Rasiah and Shahrin, 2006; MITI, 2006). However, in this time Malaysian processing capability surpassed the CPO supply. The IMP2 extended to Sarawak and Sabah and presented inducements for agro-processing industries and labour-intensive. The processing of downstream has been encouraged by the IMP2 for value-added increasing and focus to biotechnology and mechanisation (Rasiah and Shahrin, 2006).

The Third Industrial Master Plan (IMP3)

In 2006, the Third Industrial Master Plan was initiated to cover from 2006-2020. The emphasis to be given on the downstream manufacturing activities into products of value-added in terms of research and developing commercialisation, and collaborating with oil palm industries and agencies of government research. In 2010, the Economic Transformation Programme (ETP) has been introduced by the Malaysian government, which planned for a 10-year reform of the economy for energising Malaysia, by 2020 to be among the high-income countries. The industry of oil palm has achieved special government recognition under the twelve National Key Economic Areas (NKEA) to energeise economy of Malaysia. The sector of palm oil under this NKEA, is to improve productivity in upstream, increase downstream enlargement, as well as focus on the oil palm industry sustainability (May, 2012).

The 2012 ETP Report on the Eight 'entry point projects' (EPPs)

I. Speeding up implanting of new oil palm: ultimately 450,000 ha of old trees and small yielding ones will be supplanted by seedlings which is fruitful and new. Replantation is difficult if the prices of CPO arose, in 2012 to 2013, the prices has slackened off positively. The independent smallholders were funded more by Malaysian government in 2013, for replantation with newly implanting inventiveness, permitting smallholders per ha to have MYR 9000 in Sabah and Sarawak, while for those on the peninsula to have MYR 7500. II. Enhancing the yield of fresh fruit bunch (FFB): by 2020, this strategy will raise 18.89 t/ha of the FFB productivity to 26 t/ha. For a second time, smallholders are the target as their yields are largely lower than those of the estates. Companies have been established across the country to raise consciousness of best practices and new technologies, the palm oil bunches of twenty-three smallholders, twelve were established on the peninsula, in Sabah/Sarawak the remaining eleven were established, all were founded by MPOB. III. Increasing the output of worker: By narrowing the imported labour rules, the migration of employees from Indonesia, resulting to rises of Indonesian wages, this caused labour unavailability on estates, reducing the FFB harvest and decreased production of crude palm oil. The new labour-saving techniques was presented in form of the CANTAS and it was increasingly occupied by smallholders and estates. It is a motor-powered instrument to harvest and sharpen. IV. Improving the oil extraction rate (OER): By the year 2020, this strategy will increase the rate of extracting oil to 23% by enhancing the crops milling and grading, as in some years ago it lowered to 20.5%. At particular mills, the MPOB 'enforcement officers' would be posted.

V. Intensifying mills biogas amenities: By the year 2020, this idea will take over methane as a result of the milling practice by fixing facilities of biogas in the entire mills of palm oil, two electricity suppliers and fifty-seven plants were now fixed, the capacity has increased with about one-hundred and sixty mills. The palm oil mills now are totaled to four-hundred and thirty-nine located in oil palm zones (Embas, 2013).

VI. Growing high value oleo products and bio-based chemicals: The change from petrochemicals to green oleo-chemicals may steer certain fluctuations on palm oil demand. This may direct manufacturing from oleo-chemicals to high value products of bio lubricants and agrochemicals. Investments have been increased by seven main corporations in the oleo-chemical trade. The companies are facing a competition from Indonesia.

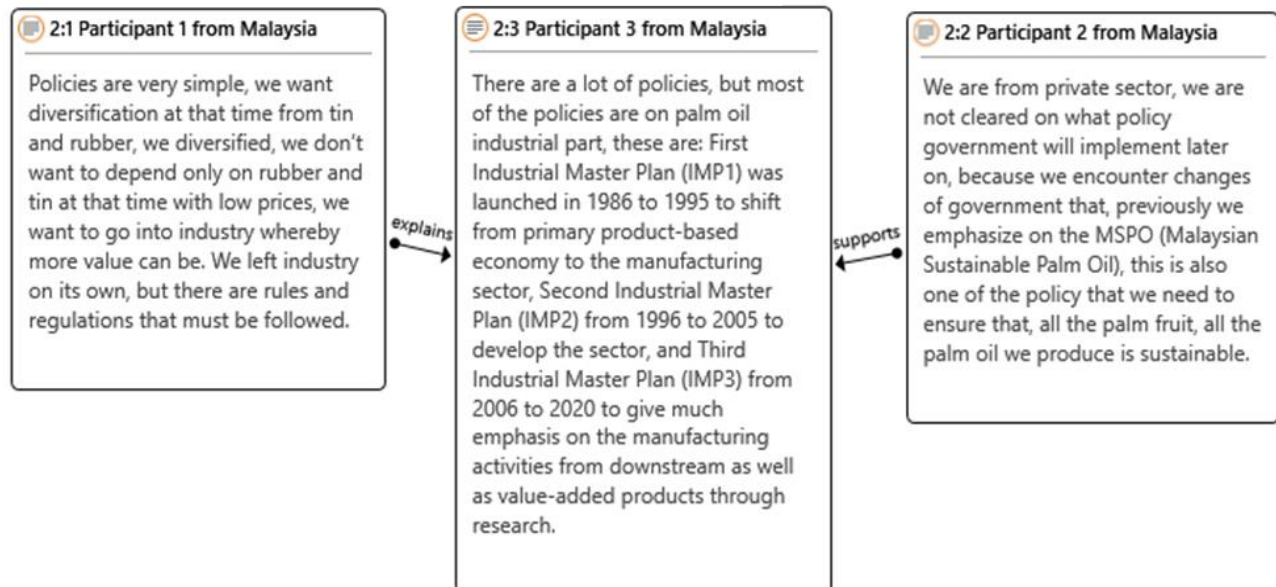
VII. The second-generation of biofuels to be commercialized: This became controversial to the biofuel growth rapidly. Four years ago, biofuel was supported, as a result of rise in prices of food and lack of replacement in fossil fuel, critiques emerged against the production of biofuel and the production declined. Bio-oil is being utilized for generating electricity, and

it is made from the biomass of oil palm such as tree fronds, trunks and empty fruit bunches.

VIII. Accelerating development in food and health sector: As a Vitamin E good source, the targets blow the use of products of palm-based such as tocotrienols in health and food produces (ETP Annual Report 2012).

This research paper used semi-structured interview to explore the sustainable Malaysian policies on palm oil, there are three participants, their ages from forty years to fifty years, and all are educated professionals. The first participant is Master's degree holder and Deputy Director-General Services, Malaysian Palm Oil Board (MPOB), Ministry of Primary Industry. The second is a Master's holder and Director, PROFES LIPID SDN BHD, Malaysia. And the third participant is a PhD holder and lecturer from Universiti Sultan Zainal Abidin, Terengganu, Malaysia. This is selected based on the participants' knowledge and will of participating in this research paper.

Figure 1: The sustained Malaysian Palm Oil



From the above figure 1, the participant one stated that, Malaysia sustained on palm oil policies due to its diversification at that time from tin and rubber, rather than depending only on rubber and tin with low prices. It shifted into industry whereby more values could be achieved and left the industry on its own, but there are rules and regulations that must be followed. The participant two highlighted that, Malaysia sustained on palm oil policies due to giving much emphasis on the MSPO (Malaysian Sustainable Palm Oil) that, all the palm fruit, all the palm oil they produce is sustainable. And the participant three discussed on the major three Malaysian master plans that led to its diversification as well as sustainability, these are: First Industrial Master Plan (IMP1) was launched in 1986 to 1995 to shift from primary product-based economy to the manufacturing sector, Second Industrial Master Plan (IMP2) from 1996 to 2005 to develop the sector, and Third Industrial Master Plan (IMP3) from 2006 to 2020 to give much emphasis on the manufacturing activities from downstream as well as value-added products through research. All the three participants are on the same track and process for viewing the sustained Malaysian policies on palm oil. In reality, Malaysian palm oil policies sustained due to good

and diversified plans which led to its development and sustainability on palm oil.

CONCLUSION AND RECOMMENDATION

In conclusion, this paper discussed on the brief historical background of Malaysia, different palm oil policies, facts about oil palm, facts on palm oil, yield of palm oil, importance of palm oil for socio-economic development, and importance of palm oil for health. The Malaysian government adopted policies on palm oil to diversify from tin and rubber due to slump in the price, but all the policies for diversification sustained in Malaysia, such as First Industrial Master Plan (IMP1), Second Industrial Master Plan (IMP2), and Third Industrial Master Plan (IMP3). All these plans are to diversify the Malaysian economy. These policies played a vital role on Malaysian economy as well as socio-economic development of the people, Malaysia have to make sure that, it comes up with other policies that will protect the image of palm oil due to the challenges facing it in the global economy of palm oil. Malaysia have to look for more land outside Malaysia and Indonesia to expand its plantation due to limited land in Malaysia.

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