



## CONCEPT NOTE ON PROMOTING VALUE-CHAIN DEVELOPMENT OF PALM OIL

### Introduction

Palm oil production is one of main staple and export commodities in major OIC member states. With Indonesia topping the global list of palm oil exporters, followed by Malaysia, Nigeria, Cote d'Ivoire, Cameroon and Sierra-Leone in the second, fifth, eighth, fifteenth and twentieth positions respectively, the importance of Palm Oil within the OIC region is very considerable. Consequently, there is a need for the new specialised institution of OIC, namely: Islamic Organisation for Food Security (IOFS) to consider a multilateral cooperation framework that would assist in the value-chain development of this product, judging from its food and export potentials. Palm Oil remains a strategic industry because of its considerable contribution to non-oil and gas exports, mass employment creation, rural development and poverty reduction in a host of IOFS/OIC countries.

### Current State

In the past few decades, palm oil industry attracted the attention of the world community because of its rapid development. The availability of palm oil in developed countries has created economic benefits for importing countries. Palm oil prices in international markets are cheaper than other vegetable oils. With more competitive prices, palm oil provides more benefits to the world community especially in low-income countries.

Palm oil as a vegetable oil is available in sufficient volume globally at competitive prices. This is why it is consumed almost in every country in the world. Due to its availability, negative campaigns against the palm oil industry appeared. Originally these campaigns were limited only to the issues related to nutrition and health in an effort to influence consumers, later on these campaigns expanded to economic, social and environmental aspects.

The misperception of the palm oil industry could threaten the future of palm oil industries of those countries, which economic development mostly depends on palm oil production levels. The palm oil industry has become the source of income for millions of people, involving small farm-holders, SMEs and larger palm oil producing companies.

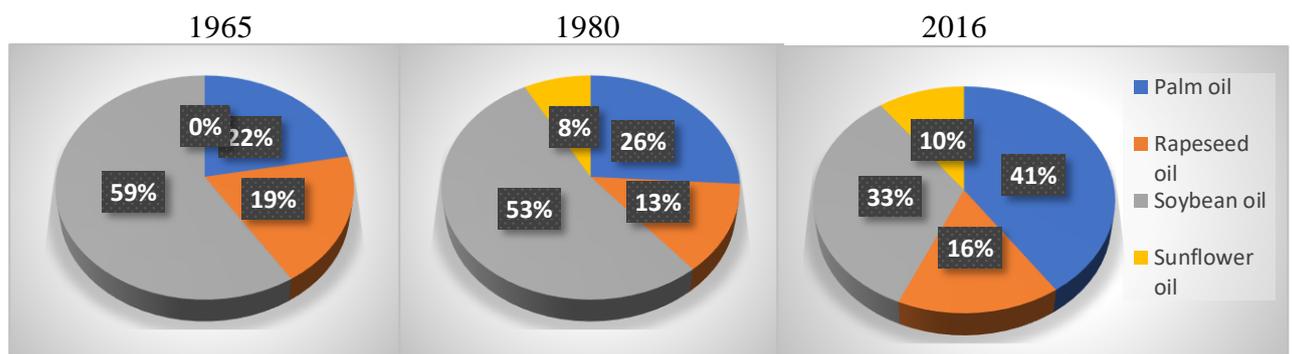
## Comparison of the productivity of various crops producing vegetable oil

No.	Crops	Productivity (ton/ha/year)
1	Palm oil	4.27
2	Rapeseed	0.69
3	Sunflower	0.52
4	Peanut	0.45
5	Soybean	0.45
6	Coconut	0.34
7	Cotton	0.19

*Source: Oil World (2008) oil world statistics ISTA Mielke GmbH Hamburg*

The productivity of palm oil is eight-ten times higher than the productivity of other vegetable oils. Thus, with less land, palm oil plantations can produce more vegetable oil. The vegetable oil productivity data also reveal that oil palm plantations are the most efficient crops in converting solar energy into vegetable oils.

Because of this difference in oil productivity per hectare, there has been a major change in the share of palm oil and soybean oil production in the world vegetable market (see Figure below)



*Changes in production shares of four major global vegetable oils (USDA 2017)*

As the table shows, the share of palm oil increased from 22 percent in 1965 to 40 percent in 2016, while the share of soybean oil fell from 59 percent to 33 percent in the same period. Thus, it is quite obvious that the share of palm oil in the world's vegetable oil production is not due to the large size of palm oil plantations but due to higher palm oil productivity than other vegetable oil-producing plants.

### Advantages

According to various studies, diesel fuel replacement with palm biodiesel will reduce greenhouse emissions from diesel engines by 50-60 percent.

Palm oil as a vegetable oil is available in sufficient volume globally at competitive prices. This is why it is consumed almost in every country in the world. Due to its availability, negative campaigns against the palm oil especially in terms of its nutritional properties appeared.

According to nutritionists, palm oil contains a stable proportion of saturated fatty acid and unsaturated fatty acid. The fatty acid composition of palm oil is saturated fatty acid that consists of 44 percent palmitic acid, 5 percent stearic fatty acid and monounsaturated fatty acid (MUFA) that consists of 10 percent linoleic fatty acid and 0.4 percent alpha linoleic fatty acid. As a whole, palm oil has the behavioural characteristics of monounsaturated oils (United States Department of Agriculture, 1979; Cottrell, 1991; Small, 1991; Choudbury et al., 1995; Kritchevsky et al., 2000; Ong and Goh, 2002; FAO, 2010; Hariyadi, 2010; GiriwonodanAndarwulan, 2016).

### **Composition of fatty acid in palm oil**

No.	Fatty acid	% Total fatty acid	
		Range	Average
1	Lauric acid (C12:0)	0.1-1.0	0.2
2	Myristic acid (C14:0)	0.9-1.5	1.1
3	Palmitic acid (C16:0)	41.8-45.8	44.0
4	Palmitoleic acid (C16:1)	0.1-0.3	0.1
5	Stearic acid (C18:0)	4.2-5.1	4.5
6	Oleic acid (C18:1)	37.3-40.8	39.2
7	Linoleic acid (C18:2)	9.1-11.0	10.1
8	Linolenic acid (C18:3)	0.0-0.6	0.4
9	Arakidonic acid (C20:0)	0.2-0.7	0.4

*Source: Hariyadi*

According to the above table, palm oil has a stable composition of saturated fatty acid and unsaturated fatty acid. Palm oil is not categorized as vegetable oil with the behavioral characteristics of saturated fatty acid. Instead, as a whole, it has the behavior of monosaturated oils.

### **Recent Cooperation Activities in the Palm-Oil Sector**

The launch of the Malaysia Capacity-Building Programme for OIC Countries (CBP4OICC) in 2005 saw a robust reverse linkage project in Sierra-Leone, whereby Malaysian technical expertise was deployed, with financial support from Islamic Development Bank (ISDB) for a Palm-Oil Plantation in Sierra-Leone.

This practical example of a triangular South-South Cooperation can be replicated through the establishment of a Plan of Action on the Development of the Palm Oil industry in IOFS/OIC member states, owing to its several advantages for food security, wealth creation and socio-economic growth of the economies of member states.

Since commencement of its operations, the Director-General of Islamic Organisation for Food Security (IOFS), within his institution's mandate to ensure food security and protect important and strategic food products, held numerous meetings with high officials of Indonesian GAPKI, Malaysian Palm Oil Producer's Council, Malaysian Palm Oil Producers' Board and representatives of their Ministries to discuss the issues of negative impact of increasing tariff and non-tariff barriers to importation of palm oil and its products to the EU countries, and minimize the effects of ongoing negative propaganda against the food quality of palm oil. To this end, IOFS also participated in a local oil-fat consumers' seminar and examined modalities for intra-regional action with the Malaysian Palm Oil Producers' Council.

## **Potential for Technological Research and Development**

With the mobilization of SESRIC as a major research institution of OIC as well as identified centers of excellence in the field of palm-oil research, it is possible to create a mutually rewarding partnership among IOFS/OIC member states. The purpose of this Concept Note is therefore to invite attention to the need for a joint action in the following areas:

- Strengthen capabilities of research institutions of member states in the domain of palm-oil production and development, as well as countering negative narratives on the food-value potentials of this product;
- Improve reverse linkage among member states for the purpose of developing capacities of resource-poor but land-rich member states;
- Create an effective platform for meeting of Centers of Excellence for the production and development of Palm-Oil industry;

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