

**PALM OIL AS AN ALTERNATIVE TO BIODIESEL PRODUCTION:
SIME DARBY BIODIESEL SDN. BHD. CAREY ISLAND, BANTING,
SELANGOR.**

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ABSTRACT

PALM OIL AS AN ALTERNATIVE TO BIODIESEL PRODUCTION: SIME DARBY BIODIESEL SDN. BHD. CAREY ISLAND, BANTING, SELANGOR.

This case study was made is to see clearly about the biodiesel processing steps and also the factor of low demand of biodiesel among Malaysian. In relation, this case study is not only focusing on biodiesel industry in Malaysia but also on global issue. Indeed, while the biodiesel existence, the issue like GST and advertising of biodiesel uses has being the problem of low demand of biodiesel use in Malaysia. However, biodiesel process is also the factor that cause low demand because the catalyst that too expensive in price and complicated structure. Result shows that global research stated the uses of biodiesel is above the usage of diesel. Moreover, biodiesel usage can give positive impact like decreasing natural resource such as diesel and petroleum, thus it also could stabilize the environment. This case study has been done in Sime Darby Biodiesel Sdn. Bhd. Carey Island Banting, Selangor.

Key word: processing of biodiesel palm oil and the factor of low demand of biodiesel among Malaysian

CHAPTER 1

INTRODUCTION

1.1 Background of study

Malaysia is one of major producers of palm oil. In the world, palm oil is one of the preferred choices of cooking fat. The palm oil is used to produce many types of end product such as cooking oil, glycerine and biodiesel. According to Basri, (2010), 17.6 million tonnes of CPO (crude palm oil) in year 2009 was produced. Malaysia is the largest exporter of CPO and the second largest exporter is Indonesia (Hoh, 2009). To increase the price of palm oil, research by MPOB (Malaysia Palm Oil Board) found a new alternative by producing biodiesel from the CPO. MPOB promoted renewable source energy to reduce the carbon dioxide emission so that, when the consumer using the biodiesel it can reduce the impact of greenhouse effect.

Other than that, methyl ester derived from vegetable oil (Biodiesel) has the potential as an alternative to diesel fuel. Biodiesel is produces by transesterfication process, branched triglycerides into smaller, straight chain molecules of methyl ester by using an alkali or acid as a catalyst (Cheryan, 2000). According to Darnoko,(2000), the number of cetane, energy content, viscosity and phase change of biodiesel are similar to natural diesel.