

Chapter 11

Oil Palm

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11.1 Introduction

The oil palm is the world's most important oil crop producing 24.9% of total vegetable oils and fats surpassing soybean at 23.9% (Mielke, <http://www.oilworld.bz>, 31 March 2007). It produces two types of oil from its fruits, meso-carp oil and kernel oil known as crude palm oil (CPO) and palm kernel oil (PKO), respectively, in international trade. Total world production of CPO stands at about 38 million tons worth around US\$ 20 billion. The oils are produced from some 13 million ha of plantations in the humid tropical countries of Asia, Africa and Latin America: Indonesia (5.3 million ha), Malaysia (4.2 million ha), Papua New Guinea, Colombia, Ivory Coast, Nigeria and Thailand with the first two countries having the bulk of the plantings. Palm oil is the largest internationally traded vegetable oil with its main markets in China, European Union, Pakistan, India, Japan and Bangladesh. Palm oil is mainly used in food (80%), e.g. as cooking oil, margarine, vanaspati or vegetable ghee and shortenings, and the remaining 20% are used as oleochemicals replacing mineral oil to feed the detergents, cosmetics, pharmaceutical/nutraceutical, plastics and lubricants industries. With the recent high rise in petroleum prices and that the deadline for meeting the requirements of the Cartagena Protocol on Biosafety in terms of 'green' or renewable energy substitution is approaching, there has been a tremendous demand for palm oil as a source of biofuel (biodiesel). Also, responding to consumer health and environmental concerns, secondary and by-products from the palm oil industry have spawned new industries, e.g. vitamins A and E and other antioxidant health supplements from the oil, animal feed and organic fertilizers from the kernel, and sludge cakes and wastes from oil extraction mills have served as value additions.

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