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**KENYA POLYTECHNIC
APPLIED SCIENCE DEPARTMENT**

**EXTRACTION AND EVALUATION OF OILS FROM CASTOR
SEEDS AND COCONUTS.**

TRADE PROJECT

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**PRESENTED TO : THE KENYA NATIONAL EXAMINATION
COUNCIL (K.N.E.C)**

COURSE : DIPLOMA IN ANALYTICAL CHEMISTRY

SERIES: OCTOBER / NOVEMBER 2000

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ABSTRACT

In this project castor seeds and coconuts were collected from different parts of the country. Castor seeds were collected from different farms in Makueni, Machakos and Taita Taveta. Coconuts were collected from different farms in Mombasa, Kwale and Kilifi.

The samples of castor were husked then they were dried under the sun. The shells of coconut were mechanically cracked then the endosperm dried under the sun. In the laboratory oils from the crushed samples were extracted using the sothlet extractor.

After extraction the amount of oils produced per kilogram of dried castor and coconut copra were determined then the oils were refined. Analysis of both oils (from castor and coconuts) were done using different parameters such as saponification number, iodine value and free fatty acid values. At the end of extraction of the two oils, it was found that castor from drier parts of the country did produce more oils as compared to the the less drier parts. Coconuts did not obey this pattern but it did produce more oil than castor.

The analytical parameters used showed that coconut oils of much superior

quality compared to castor, due to its lower iodine value and a high saponification value. The high iodine value of castor accounted for its use in manufacture of industrial products.