

**STUDY OF CLIMATE CHANGE IN
KOTA KINABALU**

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**DISERTATION SUBMITTED IN PARTIAL FULFILLMENT
FOR THE BACHELOR OF SCIENCE WITH HONOURS**

**ENVIRONMENTAL SCIENCE PROGRAMME
SCHOOL OF SCIENCE AND TECHNOLOGY
UNIVERSITY MALAYSIA SABAH**

April 2008



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UNIVERSITI MALAYSIA SABAH

ABSTRACT

Nowadays, the climate in Sabah is unstable. Hence the objective of this study is to determine whether Kota Kinabalu, experiencing climate change through rainfall analysis. Besides that, this study also determines factors such as temperature, wind, topography and cloud cover that affect rainfall at Kota Kinabalu. The rainfall data for 20 years was analysed by looking into monthly changes to see the monsoon pattern. Then, the data was further analysed to determine whether the variance of different is significant by using One-way ANOVA. Correlation is also done between rainfall and weather parameters to determine their relationship. The result shows that there is a climate change because there is a shiftiness of monsoon pattern and had significant change in rainfall amounts for two decades. This research also shows that there is climate change because rainfall amount in recent years (year 2005: 3982.4 mm; year 2006: 3360.0 mm) exceed the normal rainfall amounts (2908.7 mm). Other than that, the rainfall data also shows that there is a significant correlation between rainfall and temperature ($p = 0.00$; $r = -0.457$), wind speed ($p = 0.01$; $r = 0.250$) and cloud cover ($p = 0.00$; $r = 0.272$). There is interrelationship between rainfall and those factors but the relationship is weak because there are many factors that can affect rainfall especially rainfall in Malaysia which is greatly influenced by the monsoonal season.

