

STUDY ON EL NINO - SOUTHERN OSCILLATION
(ENSO) EVENT IN MALAYSIA

MOHAMAD MAHATHIR BIN MOHD OSMAN

FACULTY OF APPLIED SCIENCE AND TECHNOLOGY
UNIVERSITI PUTRA MALAYSIA TERENGGANU
TERENGGANU

1998

LP
12
FSGT
2
1998

**STUDY ON EL NINO – SOUTHERN OSCILLATION (ENSO)
EVENT IN MALAYSIA**

BY

MOHAMAD MAHATHIR B MOHD OSMAN

**This project Report is submitted in partial fulfilment of the
requirement for the degree of Bachelor Science (Marine Science),
Universiti Putra Malaysia Terengganu**

**Faculty of Applied Science and Technology
UNIVERSITI PUTRA MALAYSIA
TERENGGANU
1998**

1100024070

ACKNOWLEDGEMENTS

Bismillah hirrahman nir rahim Praise to All Mighty Allah. The completion of this project would have not been possible without His will.

I would like to extent my greatest thanks to my supervisors Associate Professor Dr Alejandro Livio Camerlengo and my second supervisor Dr Nasir Saadon for their advises, guidance and criticisms throughout the study and preparation of this project. Appreciation also due to those companies which gave full co-operation and those who help me in one way or another in collecting data.

Special appreciation is recorded here to my beloved parents and sister. To all my housemates: **Bidin, Ken, Lanun, Towok and Rimau**. I will remember always pertolongan kau orang, aku miss kauorang. To all **DESPERADOS** aku miss kauorang sangat banyak sangat pengalaman yang kita jadi jahat bersama, jangan lupa alumni tahun 2003. To all my ex-housemates yang tak kurang berguna: **Gombak, Bear, Dol, Jaafar, Rochee, Cheekun, Teko, Tandung, Pak Jan, Afdzal, Bel Air, Bongek and Gaban**. We grew up together here I really cannot forget you all. Thanks all.

Last but not the least to **Rin** "You jump, I jump right?". I miss you a lot babe. Finally, I would also like to express my sincere appreciation and gratitude to all others not mentioned but whose helped has been tremendous.

Thanks everyone.

Mohamad Mahathir

ABSTRACT

Twelve principal meteorological stations of Malaysia were chosen for this ENSO (El Nino Southern Oscillation) study. Weather data obtained are between 1964–1993. Monthly changes of surface pressure, precipitation, air temperature, evaporation and insolation patterns of five ENSO (1972–73, 1982–83, 1986–87, 1991–92 and 1992–93) events were analyzed. Results were based on descriptive graphs. During the events; air temperature, surface pressure, evaporation and insolation were high (0–1.6 °C, 0–2 mb, 0–2 mm and 0–9 hr; respectively) but precipitation were very low (-300–0 mm); which showed a distinct relationship between the parameters. Differences between the stations could not be avoided, based on the geographical factors and the distance of the locations.

ABSTRAK

Dua belas stesen meteorologi di Malaysia telah dipilih untuk kajian ENSO (El Nino Southern Oscillation) ini. Data cuaca yang diperolehi adalah di antara 1964–1993. Perubahan bulanan corak tekanan permukaan, hujan, suhu udara, pemeluwapan dan kedapatan cahaya matahari semasa lima kejadian ENSO (1972–73, 1982–83, 1986–87, 1991–92 dan 1992–93) telah dianalisa. Semua keputusan dibuat berdasarkan-graf diskriptif. Semasa kejadian; suhu udara, tekanan permukaan, pemeluwapan dan kedapatan cahaya matahari didapati meningkat (0–1.6 °C, 0–2 mb, 0–2 mm and 0–9 jam; masing–masing) tetapi jumlah hujan adalah sangat sedikit (-300–0 mm); menunjukkan perkaitan jelas di antara parameter–parameter tersebut. Perbezaan di antara stesen tidak dapat dielakkan disebabkan faktor–faktor geografi dan jarak di antara stesen.