

UNIVERSITI TEKNOLOGI MARA

Rice Straw Open Burning in Kedah and Perlis during
Harvesting Season for 2015 and 2019

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Thesis Submitted in Fulfillment
Of Requirement for Degree Of
Bachelor of Surveying Science and Geomatics (Hons)

Faculty of Architecture, Planning and Surveying

January 2020

AUTHOR'S DECLARATION

I declare that the work in this thesis/dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Open burning of rice straw is practiced in many countries and has been proven as a significant source of air quality affection which mostly during the harvest season. Excessive of this activities often leads to haze that can affect the main road and residential area nearby. This study aimed to estimate the variation on rice straw open burning in year 2015 and 2019 at Kedah and Perlis regions. In achieving the aim, the objectives of this study are to analyze the trends of rice straw open burning. Besides, this study needs to observe the relationship between Land Surface Temperature (LST) and Air Pollution Index (API) in two distinct years which are year 2015 and 2019. For processing, Erdas Imagine and ArcMap is being used. The state of Perlis and Kedah has been chosen as the study area, in correlation to the paddy planting is the main economic sources for both states. API data collected from Jabatan Alam Sekitar and online data from Unit Pemodenan Tadbiran Dan Perancangan Pengurusan Malaysia (MAMPU) webpage are bring together. The map of spatial distribution based on API and the relationship graph of LST and API of Kedah and Perlis in 2015 and 2019 is shown as the result. This study is significant to provide an awareness and proof that one of the cause of temperature rise is open burning of rice straw to the paddy farmers together with the community. Last but not least, this study can help in enhancing the rice straw management in Kedah and Perlis.

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