

**CENTRE OF STUDIES FOR BUILDING SURVEYING
FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING
UNIVERSITI TEKNOLOGI MARA**

**A STUDY ON RESIDENT PERCEPTION TOWARDS RAINWATER
HARVESTING APPLICATION IN DOMESTIC BUILDING**

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**Academic Project submitted in partial fulfillment of the
requirements for the degree of
Bachelor of Building Surveying (Hons)
Centre of Studies for Building Surveying
Faculty of Architecture, Planning & Surveying**

DECEMBER 2014

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**“I hereby declare that this academic project is the result of my
own research except for the quotation and summary which
have been acknowledged”**

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AKNOWLEDGMENTS

Bissmillahirrahmanirrahim,

Alhamdulillah. Thanks to Allah SWT, whom with His willing giving me the opportunity to complete this Final Year Project, which is titled a study of resident perception towards rainwater harvesting application in domestic building. This final year project report was prepared for Center Of Studies For Building, Faculty of Architecture, Planning and surveying, Universiti Teknologi Mara (UiTM), basically for student in final year to complete the undergraduate program that leads to the degree of Bachelor of Building Surveying. This report is based on the methods given by the university.

Firstly, I would like to express my deepest thanks to, Sr. Wan Zuriea Binti Wan Ismail, as my supervisor who had guided be a lot of tasks during two semester's session 2014. I also want to thank the lecturers and staffs of Building Surveying for their cooperation during I complete the final year project that had given valuable information, suggestions and guidance in the compilation and preparation this final year project report.

Deepest thanks and appreciation to my parents, family, special mate of mine, and others for their cooperation, encouragement, constructive suggestion and full of support for the report completion, from the beginning till the end. Also, thanks to all of my friends and everyone, that has been contributed by supporting my work and helps myself during the final year project progress till it is fully completed.

ABSTRACT

With the increasing of the pure water demand due to the increasing of population this country makes the water sources have been decreasing day by day. For overcoming the water shortage problem, all people must take responsibility to save the water sources. Malaysia has a large amount of rainfall annually, and this gives a advantages for this country to overcome the water shortage problems, but lots of people still not aware about the water sources from rainfall for their own uses. The problem of water in Malaysia is several of the main topics in this country. To make sure a sustainable development, the innovative way has been introduced to the country which is the rainwater harvesting system. The aim of this research is to promote rainwater harvesting system application among residents of the domestic buildings including to achieve three objective of this study which is to identify the resident opinion towards the benefit, to investigate problems that are related and to give recommendation to make an improvement of the rainwater harvesting system for the domestic building. The primary data collection method is questionnaire survey and unstructured interviews, secondary sources which is literature review. The study were conducted at three case studies which is case study 1 at Jalan 9/5, Seksyen 9, kota damansara, the case study 2 at Legian Residence in Ken Rimba and the case study 3 at Taman Daya Maju in Meru, Klang. The result of this research show that the knowledge on rainwater harvesting among the resident is neutral, which need to be improved for their own benefit by using rainwater harvesting system. The rainwater harvesting system design need to be more friendly towards user, in term of application and maintenance. From this study, the recommendation for the future study that can cover on the roles of parties involved to promote the rainwater harvesting towards application to all new housing project.

CHAPTER 1

INTRODUCTION

1.1 Background

Malaysia has become a country that having enlargement of consumers and increase in urbanization, industrialization and the agricultural industry. Due to this, it gave a big impact on water supply and water resources. Malaysia richly endowed with large amount of rainfall and rich water resources, but ironically many parts of the country are subject to water shortage especially in Selangor (Chan, 2009). It has been estimated that each of us uses a per capital fresh water of more than 300 liter/capita/day per person (Phang, 2013). Compared to citizens in lots of additional countries around the world the employment of for every capita pure water is under 1, 000 m³ for every capita per year are the common things, the quantity that available to Malaysians is actually high (World Wide Fund for Nature Malaysia, 2013).

The average percentage of non-revenue water in Malaysia is high at 36% in 2010. This problem is more serious in some states than in others (Malaysian Water Association, 2011). The government had listed many of the effort to use for residents to get suffer the problem of water shortage and rainwater harvesting system can be one of the method (Shawahid, 2009).

The actual rainwater harvesting program is actually an amount of rainwater through the top and also as built as catchment, the collected works with spot runoff coming from man-made ground or maybe natural surface area associated with catchments, industry agriculture and environment exercise. The system can be classified by large, medium and small scale (Ministry of Natural Resources & Environment, 2013).