

UNIVERSITI TEKNOLOGI MARA

**THE SIGNIFICANT ENGAGEMENT
LEVEL OF ORANG ASLI
COMMUNITIES IN UTILISING
SOLAR LIGHTING
TECHNOLOGIES TOWARDS
ENHANCING COMMUNITIES'
SAFETY IN MALAYSIA**

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ABSTRACT

This research investigates and explores the significance engagement level of Orang Asli communities in Malaysia in order to increase the communities' safety level with the aid of solar lighting applications that can address the persistent issue of interactable power supply of Orang Asli communities located in remote areas. The research has focused on the states of Pahang and Perak which have the highest population of Orang Asli in Malaysia. The Orang Asli communities consistently face the challenge of unreliable sources of light, especially in dark areas which puts their safety in danger. The lack of electrification, coupled with safety concerns, accentuates the urgent need to establish sustainable energy for indigenous communities. At the moment, it is found that there is a low engagement level among the Orang Asli communities with this sustainable energy. Therefore, this research encouraged and proposed a significant solution to involve the communities with the application of these sustainable energy practices in order to improve energy usability and the level of safety for these communities that live in rural areas. This research combines quantitative and qualitative approaches, including field surveys, observations, focus group, numerical analysis, and questionnaires in order to identify the significant engagement level that can be obtained within these communities by utilizing solar solutions. An actual solar lighting application on site has also been performed at two case studies, in Jerantut, Pahang, and Ulu Kinta, Perak. The findings of the case study reveal an improvement in both areas in lighting levels following the installation of solar lighting where most of Orang Asli expressed satisfaction with the installation, by the responses from a questionnaire conducted. Ultimately, the research has been able to identify the significant engagement level among the Orang Asli communities in enhancing their safety with the aid of solar lighting technologies, with the highest engagement coming from public awareness and then followed by knowledge. By ensuring these significant engagement levels, Jabatan Kemajuan Orang Asli (JAKOA) can disseminate this solar technology and educate Orang Asli communities throughout Malaysia by engaging the communities with solar lighting technologies.

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CHAPTER 1

INTRODUCTION

1.1 Chapter Overview

This chapter lays down the background of this thesis entirely navigated on the research studies, the problem statement, the research aim, the objectives, the scope and limitations of the entire thesis. The goal is to increase the engagement level of Orang Asli communities in solar lighting technologies to enhance the communities' safety in Malaysia.

1.2 Research Background

In Malaysia, the Orang Asli are the earliest Indigenous people to have lived, having settled in the dense rain forests of the peninsular some 5,000 years ago (Mat Dong et al., 2022). They now account for a very small share (estimated as 0.7%) of the current Malaysian population of over 33 million people (Mat Dong et al., 2022). In September 2021, the population of Orang Asli communities in Malaysia was 149,723 of the total population of 30 million people in Malaysia (Ahmad et al., 2015). According to Rahman et al., (2014), Orang Asli or aborigine is any person whose male parent is or was a member of an aboriginal ethnic group, who speaks an aboriginal language and habitually follows an aboriginal way of life and aboriginal customs and beliefs. As mentioned by Alagappar et al., (2010), the Orang Asli or indigenous people of Malaysia comprise less than 7% of the total population and are considered a minority. The Orang Asli communities make up 0.6% of the total Malaysian population, with the Senoi tribe being the largest ethnic group constituting 55% of the total Orang Asli population with a large majority from the Temiar sub-tribe (Munajat et al., 2021).

Most of them live in the forest areas and still practice the traditional ways of living. Hamid et al., (2018), mentioned that the tribe prefers to live in isolated areas such as in forests, hillsides, lakesides, or an island, connecting themselves with nature to have longer lives, and lower mortality rate. According to The Sun, (2022), due to the rural areas and deep in the forest village, there are many absences of basic needs for Orang