

**CARBON SEQUESTRATION ESTIMATION
AT FOREST OF UiTM SABAH BRANCH**

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ABSTRACT

CARBON SEQUESTRATION ESTIMATION AT FOREST OF UiTM SABAH BRANCH

UiTM Sabah Branch has undergone several developments including buildings and other infrastructures such as electricity substations, tanks, roads and many more. This development needs deforestation activities. Deforestation activities caused carbon dioxide to be saturated in the atmosphere since the quantity of trees left to sink the carbon is limited. Excessive increasing of carbon dioxide in the atmosphere could bring a negative impact to organizations, health, industries, economy and also the ecology. The purpose of this study is to estimate the amount of carbon stock of the trees as well as to study the relationship between the diameter at breast height (DBH) of the trees, elevation and soil pH with the carbon stock of the trees. This study includes five stations covering an area of 13,500 m² and the findings data from this study were analyzed. The carbon stock of the trees is estimated by using an allometric equation by Brown (1997) and was multiplied by 0.46 as it is the conversion of carbon content in a tree. The relationship between the DBH of the trees, elevation and soil pH with the carbon stock of trees is determined by using Pearson's correlation coefficient. The result showed that the estimation of total carbon stock of the trees at UiTM Sabah Branch is 10.76 kg/m². This estimation of carbon stock of the trees is far higher compared to other studies conducted. Thus, it indicates that the carbon stock of forest at UiTM Sabah Branch is in a good level. The carbon stock of the trees is increasing as the DBH of the trees increases. The carbon stock of the trees also increases as the elevation increases. In contrast, soil pH and the carbon stock of the trees showed a weak negative correlation.