2026 GLOBE Virtual Science Symposium
Kaohsiung Municipal Girls' Senior High School Kaohsiung Taiwan

Investigate the basic data and carbon sequestration of trees on the campus of Kaohsiung Girls' High School

1. Abstract

This study aims to utilize a campus tree information platform to investigate the relationship between tree species, trunk circumference, and height with their carbon sequestration capacity. Through field measurements and data analysis, a predictive model for tree carbon storage was developed. The findings were presented through posters and interpretive signs, and shared with students and faculty during on-campus events. Results indicate a positive correlation between tree volume, species, and carbon sequestration, with tree size being the most

3. Result

(1) The measurements indicate a positive correlation between tree volume/species and carbon sink capacity. Trees with greater circumference and height have higher carbon storage; conversely, smaller trees store less carbon. These results emphasize the importance of tree structure in contributing to carbon sequestration.

(2) Create campus tree models and explain them with posters during Atmosphere Week to help teachers and students understand the distribution of trees.

(3) Through a series of on-campus carbon sink activities, teachers and students can participate firsthand and learn about the environmental benefits of carbon sinks in schools.

(4) Create tree information signs that include tree height, tree circumference, and carbon sink amount.

2. Research Methods and Overview of Research Questions

(1)Introduction to the MOE Campus Tree Information Platfor
(2) Field Measurement Methods
(3) Measuring carbon sinks
(4) On-Campus Promotion
(5) Create tree information signs that include tree height, tree circumference, and carbon sink amount.

School Tree Information Signs

5. References

(1) How Can Forest Carbon Sinks Be Turned into Forest Carbon Credits? Understanding Carbon Sinks, Carbon Credits & Methods for Calculating Forest Carbon Credit Prices

(2) https://www.aph-epower.com/post/carbonsink#:~:text

(3)Calculation and Measurement Methods for Carbon Sinks

(4)https://tdr.lib.ntu.edu.tw/jspui/retrieve/f150af17-0832-4423-9e34-f14d6d5e3a54/ntu-110-2.pdf

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