

Energy Consumption, Emission Absorption and Carbon Emission Reduction on Semarang State University Campus

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Abstract : Universitas Negeri Semarang (UNNES) is a university with a vision of conservation. The impact of the UNNES conservation is the existence of a positive response from the community for the effort of greening the campus and the planting of conservation value in the academic community. But in reality, energy consumption in UNNES campus tends to increase. The objectives of the study were to analyze the energy consumption in the campus area, to analyze the absorption of emissions by trees and the awareness of UNNES citizens in reducing emissions. Research focuses on energy consumption, carbon emissions, and awareness of citizens in reducing emissions. Research subjects in this study are UNNES citizens (lecturers, students and employees). The research area covers 6 faculties and one administrative center building. Data collection is done by observation, interview and documentation. The research used a quantitative descriptive method to analyze the data. The number of trees in UNNES is 10,264. Total emission on campus UNNES is 7.862.281.56 kg/year, the tree absorption is 6,289,250.38 kg/year. In UNNES campus area there are still 1,575,031.18 kg/year of emissions, not yet absorbed by trees. There are only two areas of the faculty whose trees are capable of absorbing emissions. The awareness of UNNES citizens in reducing energy consumption is seen in change the habit of: using energy-saving equipment (65%); reduce energy consumption per unit (68%); do energy literacy for UNNES citizens (74%). UNNES leaders always provide motivation to the citizens of UNNES, to reduce and change patterns of energy consumption.

Keywords : energy consumption, carbon emission absorption, emission reduction, energy literacy

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