SUSTAINABLE DEVELOPMENT POLICY OF GREEN TRANSPORTATION SYSTEM TO SUPPORT GREEN CAMPUS PROGRAM AT POLITEKNIK NEGERI MALANG

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ABSTRACT

The rapid development of science and technology will affect in various fields of human life, one of them is environmental damage. The world of education, including the State Polytechnic of Malang (Polinema) must care about the environment by implementing a green campus concept policy. During weekdays campus residents are active and carry out mobility for a full day in the campus environment. One of the main supporters of mobility in the campus environment that supports the green campus program is the green transportation system. To support the performance of the implementation of the campus's internal green transportation system, infrastructure and mobility factors are important. The objectives of this research are to: (1) develop a green transportation system that supports mobility and supports the concept of a green campus at the main campus of Polinema; and (2) develop infrastructure supporting the green transportation program. This research will be carried out with a research and development design with a qualitative approach. This approach is considered very appropriate because it relates to the general purpose of research. Based on the results of identification in the field, the internal green transportation system of the Polinema main campus has been partially implemented in the form of physical elements. The available internal green transportation infrastructure of the Polinema main campus is roads, walkways/corridors for pedestrians, parking areas for motorized vehicles and electric bicycles as well as means of transportation in the form of electric bicycles. Even though means of green transportation and infrastructure are available on the main campus of Polinema, they still need to be further developed in order to better support the mobility, security and comfort of all campus residents. The results of the study are as follows: (1) Sustainable development policy of a green transportation system in order to support mobility and the green campus program is implemented in the form of developing a green transportation system on campus in the form of e-bike sharing by utilizing rooftop solar energy as an energy source for electric bicycles, and (2) developt the function of electric bicycle parking facilities into a charging station for electric bicycles, in order to improve the performance of green transportation programs and green campuses to be better based on the UI Green Metric criteria and indicators.

Keywords: Sustainable Development Policy, Green Campus, Green Transportation, E-bike sharing, Polinema.