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Green house for urban area in Indonesia: Are we ready to adopt green building concept?

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Indonesia started to implement the concept of green building but it should be underlined that it is different with some developed countries which already targeting a single house as important object in green building concept implementation, Indonesia has not specifically targeting housing sector in green building concept implementation while in fact land cover of metropolitan cities in Indonesia were dominated by single homes. This study aims to find out whether of urban communities in Indonesia ready in adopting green building concept especially during operational phase of building. Operational phase of a building is the longest period where consumption patterns of its inhabitants become the key to achieve the objective of green building concept. Survey of 96 respondents was conducted to examine behavior and consumption patterns. Descriptive statistical analysis was conducted to determine propensity to consume. Statistical analysis was used as dynamic model basis to determine the sustainability of cities related to socio-economic conditions of inhabitants. GIS analysis in Tangerang City which is considered to represent the characteristics of metropolitan cities in Indonesia, shows that land cover was dominated by the housing area up to 51.7% while industrial areas only reached 24.09% and commercial areas only 15.37%. Results of analysis showed that level of education have a considerable influence on the awareness that is the higher the education level. The results then used as basis to build dynamic model to predict carbon footprint emitted. Mostly level of education population are high school and it would turn out to be significant problems, since statistical analysis show that people with education minimum bachelor's degree would have sustainable consumption pattern. Carbon footprint analysis with dynamic system shows that annual carbon footprint per capita will continue to increase due to the absence of changes in the consumption patterns of residential activity.

Biography

Mesi Shinta Dewi is an Urban Environmental Engineer, working for Local Government of Tangerang Municipality since 2003. She is currently pursuing PhD in Environmental Sciences at Universitas Indonesia. She has obtained her Bachelor's degree from Bandung Institute of Technology as an Environmental Engineer in 1998 and in September 2007 she got scholarship from National Development Planning Agency to take Master's program in Regional and Urban Planning, Bandung Institute of Technology and graduated in April 2009.

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