

Developing Appropriate Theories for Tropical Eco-Settlement: Ecological Approach *

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Abstract

Although the settlements ecosystems are governed by the same ecological principles as other built environment ecosystems, the relative importance of certain ecological patterns and processes are different than natural environment and wilderness ecosystems. Compared to other kind of built environment, settlements are usually more island-like, more often represent succession stages, and are more easily invaded by species. All these features are results of the intense human influence on the settlements. These characteristics are similar to urban environment generally. The question then arises whether a distinct theory of settlements ecology is needed for understanding ecological patterns and processes in the settlements setting. This paper explains that settlements ecosystems can be successfully studied using existing ecological theories. However, due to the intense human presence, approaches that include the human aspect are useful in studying built environment changes generally and settlements systems particularly. For instance, the "human ecosystem model," which emphasizes human impact by identifying social components with connections to ecology, is a useful approach in studying the settlements environment. This model, combined with the urban-rural gradient approach, forms an effective tool for studying key ecological features of settlements ecosystems. Better understanding of these features would increase the ability to predict changes that land use causes in the environment, and would help to integrate ecology better into settlements planning.

Keywords: ecosystem, ecology, theory, settlement planning.

Full-text in pdf-file available on request, please email to: wdpratiwi@ar.itb.ac.id

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