PRINSA PARUNA. Model of Pekarangan as a Biodiversity Garden in Industrial Area of Karawang International Industrial City. Under direction of HADI SUSILO ARIFIN.

Biodiversity has an important functions to support lives of living things and ecosystem sustainability. Therefore, biodiversity should be preserved. However, today's biodiversity has decreased. One of the factors is increasing environmental pollution especially in industrial area. On the other hand, we can still use the other land to mitigate the problems by developing a green open space. Karawang International Industrial City (KIIC) as an industrial area needs green open space. One form of green open space is "pekarangan". "Pekarangan" is a mixture of annual crops, perennial crops, and animals (including insects and wild animals) on the land surrounding a house. It is one of typical agro-ecosystem that has multifunctions. For this case, the function is to ex-situ biodiversity conservation. "Pekarangan" has a complex horizontal structure, while a mixture of annual and perennials of different heights forms a vertical structure. "Pekarangan" serve as an important habitat for wild flora and fauna in these areas with the multi-layered vegetation structure. This research has purpose to make a model of "pekarangan" in industrial area especially for settlement around KIIC. This research used survey method and descriptive analysis. This model will be implemented in Telaga Desa KIIC. Model of "pekarangan" was defined in to four size of "pekarangan": small size (<120 m²), medium size (120-400 m²), large size (400-1000 m²), and very large size (>1000 m²). Every size have three zones: back yard, front yard, and side yard (left side and right side). "Pekarangan" will apply form of agroforestry (agroforestry, agrosilvopastural, and agrosilvofishery). The different of them are depend on size of site, situational analysis of site, and elements of "pekarangan": plants and animals/fish. The size, type, and number of "pekarangan" elements will be more complex along extent of "pekarangan".

Keywords : agroforestry, ex-situ conservation, plant stratification, structure of "pekarangan"