SUMMARY

Chara Fitalika Berlianas Taqwiya, *Department of Architecture, Faculty of Engineering, Universitas Brawijaya, in January 2017, Ecological Islamic Centre in Malang, Supervisor*: Agung Murti Nugroho And Ary Dedy Putranto.

Malang government has programmed to construct Islamic Centre in order to comply the facility for the society. It also support the vission and mission of Malang city for creating a religious and tolerant society. In addition, the government plan to develop the city based on environmental planning. It is in accordance with the global warming issue where development is known to contribute 10% polutant to the environmental, such as polutant from development activities, facility utilization activities, and resources utilization. Furthermore, the development is programmed to be located at Kedungkandang that is still green, therefore the ecological view are needed to be involved in the environmental planning. Ecological architecture is architecture that involving ecological factors on designing the building. Hence, ecological architecture is the best option to construct Islamic Centre that involving ecological perspective.

The design of Ecological Islamic Centre have to comply the government arrangement. Literature study and comparation about the facilities of Islamic Centre are strongly needed in order to complement the government arrangement and fullfill the standard of Islamic Centre, including wide and capacity of the rooms. Besides, ecological view in the development means minimizing the environmental damage as the impact of construction and minimizing the energy use. Thus can be reached by anticipated 3 aspects, including climate, the use of ecological material, and a wise waste disposal. Survey on the location is also required in order to observe the existing condition and utilize the natural potential that appropriate with the government regulation. Climate aspect is categorized into formation, and orientation; formation and roof material; formation, position, and dimension; management of green open space, color, and wall material, floor material and roof, type of waste disposal. This study implements descriptive and qualitative approach, and the design decision is intuitive.

The result is the rooms used in macro including mosque, meeting hall, library, priest's house, clinic, stand, sport facilities, place for Hajj Manasik , and kindergarten. The building orientation was sideways to the western-eastern with a purpose to minimize the solar radiation. While the opening was majority orientating 90º to the wind direction and to the northern-southern, with the dimension that utilizing the vertical and horizontal angle of sunlight. Landscape was utilizing 75% of the green base that still available. The floor was designed to be sloping with the material of clay tile and green roof, the wall was painted white to minimize the heat absorption. Moreover, waste management was using rainwater harvesting, with the biodigester concept, and solar panels.

Keyword : *Islamic Centre*, ecological, Malang City