

## SUMMARY

**Moch. Faisal Rafif Herlambang**, Department of Urban and Regional Planning, Faculty of Engineering, University of Brawijaya, April 2016, *Assessment of Environmental Carrying Capacity in Tirta Nirwana Songgoriti Tourism Batu City*. Academic Supervisor : Dr. Ir. Agus Dwi Wicaksono, Lic.Rer.Reg and AR. Rohman Taufiq H., ST., M.Agr.Sc.

Tirta Nirwana Songgoriti is one of tourism destinations in Batu City, East Java. It is one of main tourism destination. Tirta Nirwana Songgoriti Tourism is located in Songgokerto village, Batu Sub-district, Batu City. The attraction has an area about 3.8 hectares comprising of several facilities such as outbound area, swimming pool, cafeteria, bathrooms, prayer rooms, water bike and pedestrian paths. Lacking of research on carrying capacity of the tourist object in accommodating tourist may increase the apprehension against Environment preservation.

This study aimed to investigate the carrying capacity of the environment and the maximum number of tourists who can be accommodated at Tirta Nirwana Songgoriti Tourism. This study used Cifuentes (1992) method. This method allowed to investigate about Physical Carrying Capacity, Real Carrying Capacity, Management Capacity, and Effective Carrying Capacity.

The result showed that Tirta Nirwana Songgoriti Tourism capacity hasn't been exceeded the existing 131 of 148 tourists per day and it implied that maximum number of tourists who can be accommodated by 148 tourists per day. Physical carrying capacity showed the result obtained maximum by 1.922 tourists visit per day. The maximum value of 1.922 is visiting tourists can physically be accommodated in the attraction. The second analysis is the real carrying capacity in which the results obtained by the 148 tourist visit per day. Value of 148 is the maximum number of tourists who can fit that has considered by the biotic and abiotic variables at all thus the value of the real carrying capacity analysis is smaller than the value of the physical carrying capacity analysis. Management Capacity showed the results obtained by 100%. These results suggested that the ability of management to manage very well despite the attraction with tourists in large numbers. Effective carrying capacity which is the result between real carrying capacity with management carrying capacity. 148 tourists is the maximum tourist that can be accommodated in Tirta Nirwana Songgoriti Tourism which hasn't considered aspects of biotic and abiotic, as well as management in managing tourist attraction. 148 of tourist visits was considered above the existing number of tourist visits in the last 5 years about 131 tourists per day.

This result suggest to aware about the carrying capacity shouldn't become exceeded. Tirta Nirwana Songgoriti is located in the buffer zone so it has important role to keep environment health. Therefore Batu City government should take consider this result when they develop the tourism. Even the tourism of Batu City is nature tourism in majority.

**Keywords:** Carrying capacity, Tirta Nirwana Songgoriti, Tourist visit.