



# 学 位 論 文 要 旨

専攻名 資源循環学専攻

氏 名 Sri Een Hartatik

題 目 Urban Green Space for Children: Identifying and Assessing the Green Space for Elementary School Children in Malang, Indonesia  
(子どものための都市緑地:インドネシア・マランにおける小学生のための緑地の特定と評価)

For identifying and assessing the green space around elementary school in Malang, Indonesia, two following analysis were conducted. The results of this study will have considerable impact on green space management and planning in the study area.

## (1) The Current Status of Green Space Around Elementary Schools: A Case Study of Malang, Indonesia

Green spaces are important for children in developing countries. While Malang has experienced steady economic and population growth in recent years, urban green spaces have been decreased recently. The purpose of this study was to understand the current status of green spaces around children through green space detection around 291 elementary schools using a satellite image, and improving green spaces were discussed in Malang, Indonesia. Green spaces were detected using a RapidEye satellite image, which was acquired on May 20, 2015, and covered the study area at a 5-m ground sampling distance. The areas of green spaces within 1 km radius circles of elementary schools were calculated. The total area of green spaces in city was 45.43.9 km<sup>2</sup>, and green space ratio was 41.3%. Smaller green spaces located in the center of city while larger green spaces in the city were located at the southeastern part. The green space ratio within 1 km buffer zone of 96 schools was less than 15%. Around 200 schools, it was less than 30%. There are few green spaces within walking distance of schools in Malang. The lower green space ratio in the school zone tended to distribute in the center of the city. We should consider maintaining green spaces, while giving opportunity for experience in green spaces should be increased.

## (2) The Actual Use of Green Spaces by Children and Parents Malang, Indonesia

Green spaces in developing countries often are destroyed and degraded for other land uses. As increases in urbanization and population continue in Indonesia, it will be increasingly important to discuss green spaces around children. In this study, the actual use of urban green spaces by children was investigated through questionnaires for children and their parents, and the strategy for increasing opportunity to use urban green spaces was discussed in Malang, a region of progressing urbanization in Indonesia. A total of 147 questionnaires were received from the children and 145 from their parents. While there were few green spaces around schools in Malang, especially in the center of the city, fortunately, children liked to play in the outside more than other studies. However, children preferred to spend their time in well-maintained or level areas, such as parks and open fields. It might be important to provide parks with enough vegetation and attractive program within their living area in order to make them use green spaces. The cooperation with companies as corporate social responsibility program for developing environmental education programs might be effective.

(備考) 日本語 (2000 字以内) または英語 (500 ワード以内) にまとめて記載してください