Kanokwan Kaewpakasit 2012: Existing Status and Management Guidelines of Trees on the Chalermprakiat Connecting Path, Chatuchak Metropolitan Park Project. Master of Science (Forest Resource and Environmental Administration), Major Field: Forest Resource and Environmental Administration, Faculty of Forestry. Thesis Advisor: Assistant Professor Sapit Diloksumpun, Ph.D. 92 pages.

The Chatuchak Metropolitan Park Project will be undertaken to establish as the first metropolitan park in Thailand, by improving the landscape and combining the three following parks: Chatuchak Park, Queen Sirikit Park and Wachirabenchathat Park. The purpose of this study is to determine the existing status of the trees in the Chalermprakiat Connecting Path, one of the major three connecting paths to be established under the Chatuchak Park Project. A 140 m x 450 m survey plot was established and species identification and measurements of height and diameter at breast height (DBH) were undertaken in all trees as well as tree health assessments by a scoring system. Management guidelines of trees to be affected were proposed accordingly based upon their existing status.

It was found that there were 62 tree species belonging to 22 families with the total number of 845 trees observed in the survey plot. The tree species with the greatest mean DBH was *Albizia lebbeck* (L.) Benth. (44.1 cm), while those with the greatest mean total height were *Casuarina junghuhniana* Miq. and *Albizia saman* (Jacq.) Merr. (20.4 m). Based on the tree health assessment, most tree species found in the survey plot were classified into good to very good health, with the total health scores higher than 70%.

Of the total 845 trees, the impacts to 580 trees in 42 tree species and 18 families were expected based on an overlay of the survey map and the master plan of the Chatuchak Park Project. *A. lebbeck* had the greatest mean DBH of 47.3 cm and *C. junghuhniana* had the greatest mean total height of 20.5 m. Most of the tree species were also classified into good to very good health, with the total health scores higher than 70%, except for *Ziziphus mauritiana* Lam., with the total health scores less than 50%. Two management guidelines of the total 580 trees were then proposed: (1) 64 trees of particular conservation significance including big-size trees in fairly good to very good health to be remained in their existing locations; and (2) the rest of 516 trees, including small- to medium-size trees, shrubby trees and shrub/shrubby trees and others failed to meet the conservation criteria to be balled and transplanted in appropriate area adjacent to their existing locations. Appropriate practices depending on tree species and sizes for the two proposed management approaches were also recommended accordingly.

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