



ISDSI CHIANG MAI URBAN SUSTAINABILITY STUDENT STUDY: FALL, 2009

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TITLE: Walkability of Chiang Mai: 12 Huai Kaeo and Rim Ping Condo

REPORT: We define “walkability” as a measure of how well an individual can comfortably live within an area of about two kilometers. This measure is essential to sustainability because if an individual can fulfill most needs within this area, he or she will not need to drive a carbon-emitting vehicle, thereby decreasing his or her carbon footprint. Walkability was characterized by access, safety, and usability. “Access” is how the area supplies basic needs (food, healthcare, schools, etc.) and recreational wants. “Safety” encompasses feelings on the level and threat of traffic, and street crossing time. “Usability” entails the ease of use of the sidewalk itself through its condition and size as well as the presence of obstructions that could limit handicap accessibility. Our working hypothesis was that the area with student living would be more walkable; students live in the space seasonally and are economically limited.

Experimenters collected qualitative and quantitative data by walking along sidewalks of two neighborhoods with different inhabitants: university aged students (12 Huai Kaeo) and mid to upper class Thai citizens (Rim Ping). Experimenters took qualitative notes of the sidewalk (i.e. cracked, bumpy, no ramp), recorded any physical obstacles, and measured sidewalks and obstructions (plots for trees that sometimes weren't used). Measurements were taken using experimenters' feet as units that were measured later and quantified. We recorded available businesses, goods, and services; timed street-crossing, and recorded perceived traffic level and threat of danger. Each area was graded low, mid, or high, which designated how an area performed for each of the three characteristics. For usability and access, low denoted a negative comment while for traffic it designated a low threat.

The area around Rim Ping Condo at 2:00 PM had a mid level of usability sidewalk with an average width of 1.56 m and obstructions averaging 0.96 m x 0.96 m set about 4 m apart. Access to fresh food and other essentials was high with the relative proximity to Kad Luang and other small shops. The area's traffic was rated as a low risk level for safety since the traffic flow was mild and slow and traffic rules were honored. In addition, crossing the street had very little threat and averaged 13 seconds.

The area surrounding 12 Huai Kaeo on Huai Kaeo Road, at 2:30 PM, earned a high level of usability. The average sidewalk width was 2.4 m with 1 m x 1 m obstructions set 6 m apart. Access rated high because of the proximity to Kad Seuang Kaeo with groceries, clothing, entertainment, as well as other stores. The traffic earned the area a mid level threat due to the heavy flow of traffic, reckless driving, and traffic violations, which resulted in a dangerous crossing lasting 90 seconds. The area nearby on Nimmana Haeminda Road, at 2:30 PM, rated low to mid usability. The average sidewalks were 1.5 m with some areas lacking sidewalks. Obstacles were 1 m x 1 m set 4 m apart; other obstructions included signs that blocked the sidewalk. Access was high because of a variety of shops (grocery, cafes, clothing stores). Safety was a high level risk due to heavy traffic and violations, making crossing the street perilous.

The study was limited by two main factors: time and sampling. Time limited the study because some shops were closed at the time that the observations were made and could have had more services to offer. In addition, we could not get a good picture of traffic for the whole day. We found out later from an employee at Prince Royals College near Rim Ping, Pi Dave, that during rush hour at about 4:30 PM, the traffic in the area gets incredibly dangerous. Furthermore, we had limits on sampling because our observations were gathered mostly from sight.

In order to reach a detailed understanding of walkability in each neighborhood, we would need to investigate the actual demographics of the area from income level to family size. Future studies could investigate further the quality of products (i.e. food and clothing) available in areas and see if there is a difference and if it causes more individuals to shop in the area. In addition, more work could be put into comparing the walkability of areas outside of cities and observe whether there are specific elements that are missing there and whether or not they could be installed to allow greater walkability.