



ISDSI CHIANG MAI URBAN SUSTAINABILITY STUDENT STUDY: FALL, 2009

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TITLE: Chiang Mai Walkability

PURPOSE: A cities relative 'walkability' could mean many things. In America, walkability often refers to the amenities and commerce available within walking distance, often taking the walking surface for granted. We focused on the actual physical act of walking along a road in Chiang Mai and how pedestrians coexisted with traffic and the built environment. High walkability is an important aspect of sustainability, for it reinforces a smaller local economy devoid of excess traffic and the negative impacts that are associated with automobiles.

METHODS: Our walkability study of Chiang Mai focused on three greater factors of walkability, with multiple indicators in each factor. Our three factors were the human factor, the physical walking infrastructure factor, and the walking risk factor. We used a 0 through 5 scale for each indicator, and attempted to standardize our data collection by setting prior standards for a certain score on the 0 through 5 scale. Please refer to the attached walkability index table for our specific indicators. We surveyed every .1 miles along a certain road, testing superhighways, commercial streets, and residential sois, comparing roads within the old city and outside the old city. We surveyed as a group to keep our subjective ratings as standard as possible.

RESULTS AND CONCLUSIONS: We graphed three factors: the physical walking infrastructure, the human factor, and the walking risk factor for each road studied. We also compared these factors between "old" city versus "new" city roads, and between commercial roads, highways, and sois. According to our data, the most walkable street is Phra Pokko and the least walkable is the Sois. However, the risk factor on the Sois was the lowest of the roads studied due to the fact that there was nearly no traffic. The drawback on the sois was its relative lack of walking infrastructure compared to other roads. Phra Pokko scored high on both walking infrastructure, and the human factor, showing how curbs and large sidewalks reinforce a feeling of safety.

In comparing the "old" city (inside moat) versus the "new" city (outside moat) we qualitatively felt much safer in the "old" city mainly due to a feeling the there was more structure to the sidewalks; however our data did not show this conclusively. The lack of infrastructure on the sois probably lowered our average walkability inside the "old" city. These sois, however, had a low volume of slow traffic. Another study should modify the weight given to sois versus commercial and superhighway type roads. We also noticed that on average there were much more pedestrians in the old city than the new city.

In comparing commercial roads, highways, and sois our data showed that commercial roads and highways were safer than the sois. Again, although the data showed that we were safer on the larger roads, we often felt more at risk while on the highways where the higher speed traffic was passing. We realized that weighing each indicator equally doesn't agree with our innate sense of the walkability.

FURTHER STUDIES: By no means is this a fully comprehensive study of the walkability within the city of Chiang Mai. There are many questions that still remain unanswered. For example, are people not walking along the street due to a lack of sidewalks, or is there a lack of sidewalks because people choose not to walk? In addition to this, our risk factor analysis could have been more accurate if we were able to include more indicators, such as yearly pedestrian fatalities or traffic violations. In order to complete an adequate study of the walkability of Chiang Mai we would need far more time and resources. Our method of taking measurements every tenth of a mile often skipped over "walkability" problems such as obstacles, poor terrain, and the variability of the road. By using a more precise method we may have been able to avoid these inaccuracies. It would also be beneficial to find a way in which we could quantitatively measure our qualitative indicators, such as usability and "crossability" of a particular area.