

7 The Analysis of Traffic and Transport Projects

The processes and the analysis for implementing traffic and transport master plan of Uttaradit Province are shown in Figure 7 – 1

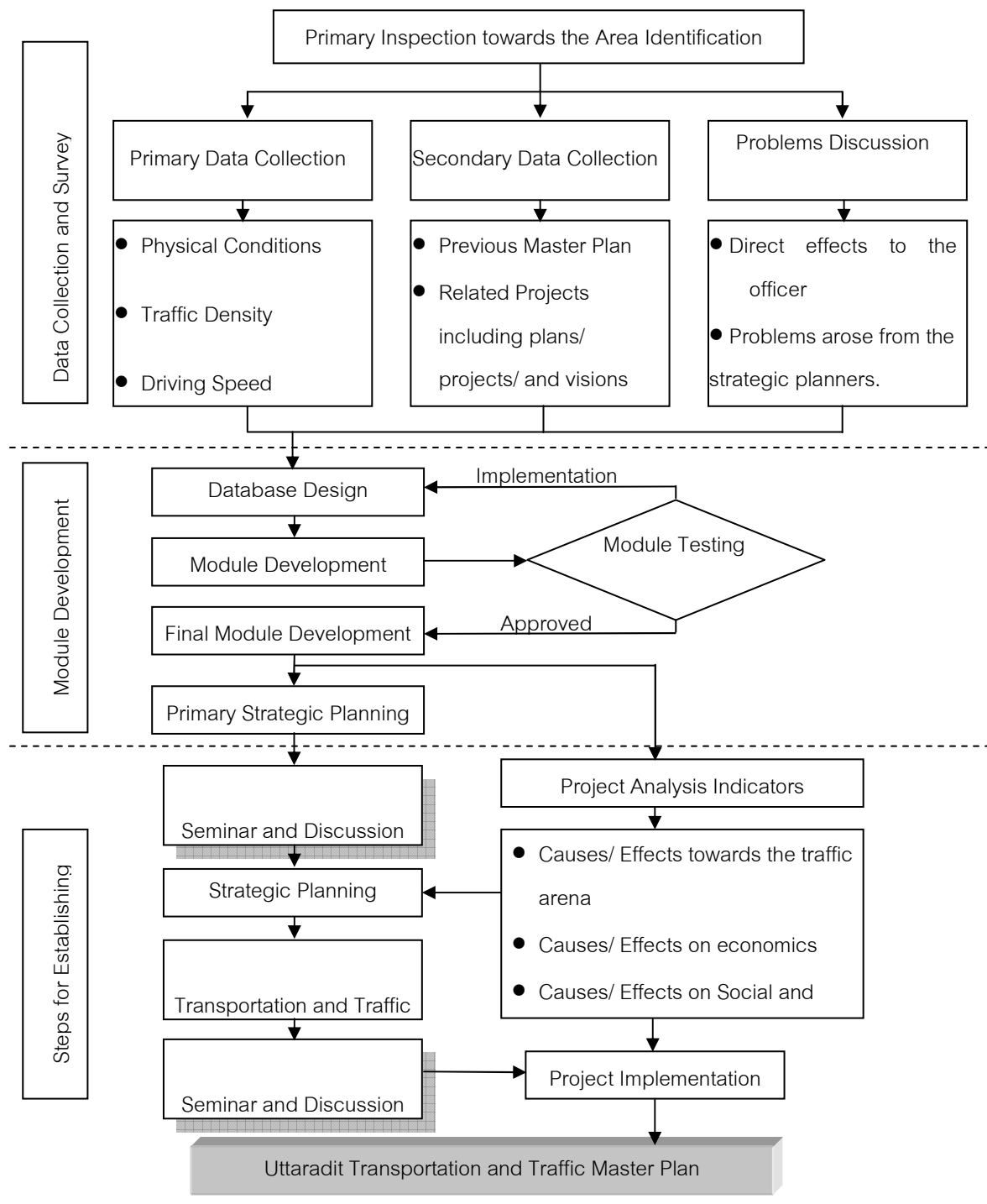


Figure 7-1: Steps for the Studies

7.1 Characteristics and Commuting Behavior in Uttaradit Master Plan

According to home interview of 1,243 households from total households of 60,677 within Uttaradit Master Plan areas, characteristics and commuting behavior including information related to social, economic, characteristics, and behavior aspects can be summarized as follows;

7.1.1 Socio-Economic Information in Uttaradit Master Plan

Most households in study area (33.39%) are medium-size households with family members of 2 persons whereas the average household size in study area is 2.65 persons/household. The average income is 5,814 Baht/month/person or 15,407 Baht/month/family.

The proportion of females and males are not much different in number. From the survey, it indicated that from the population of 3,293 persons, 1,649 persons are males accumulated as 50.08% while 1,644 persons (49.92%) are females. More than half of the total population (64.53%) is working-age population (26-60) whereas 25.3% is school-age population (6-25 years old).

7.1.2 Travel Information in Uttaradit Master Plan Areas

According to home interview in 2008, the total trips within a day are 10,634 or 1 trips per person per day or 1.14 trips per household per day.

7.1.3 Behavior of travel in Uttaradit Master Plan Areas

According to home interview differentiated by the purposes for traveling, it was found that 2.95% were the pedestrians, 3.73% used the public buses, and the rest of 93.32% used personal cars.

7.2 Development of Traffic and Transport Model

- Existing OD Table

Survey Results: The results were gathered from the commuters living in Uttaradit Master Plan areas with the methods of conducting home interviews, and the information related to the arrival and departure vehicles from the interview which gained by the Highway passerby in 53 internal zones within Uttaradit Master Plan areas and 5 external zones as shown in Figure 7.2-1

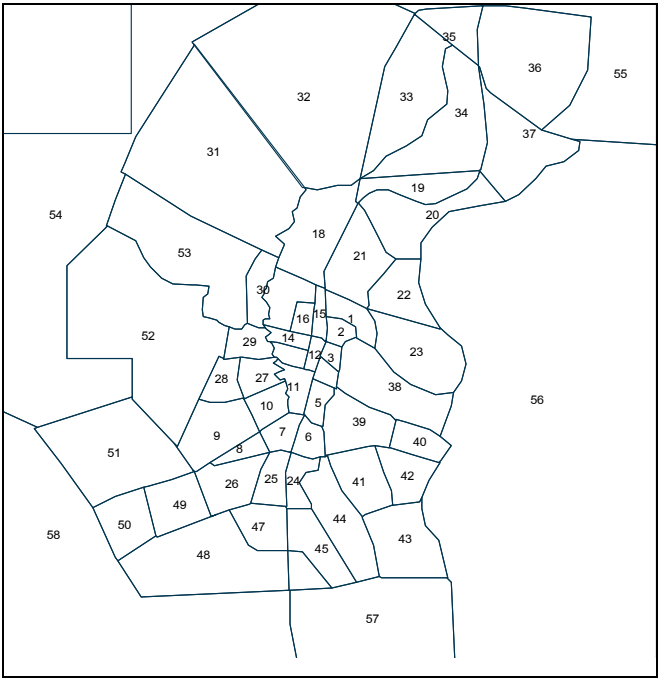


Figure 7.2-1 Internal and external zones in Uttaradit

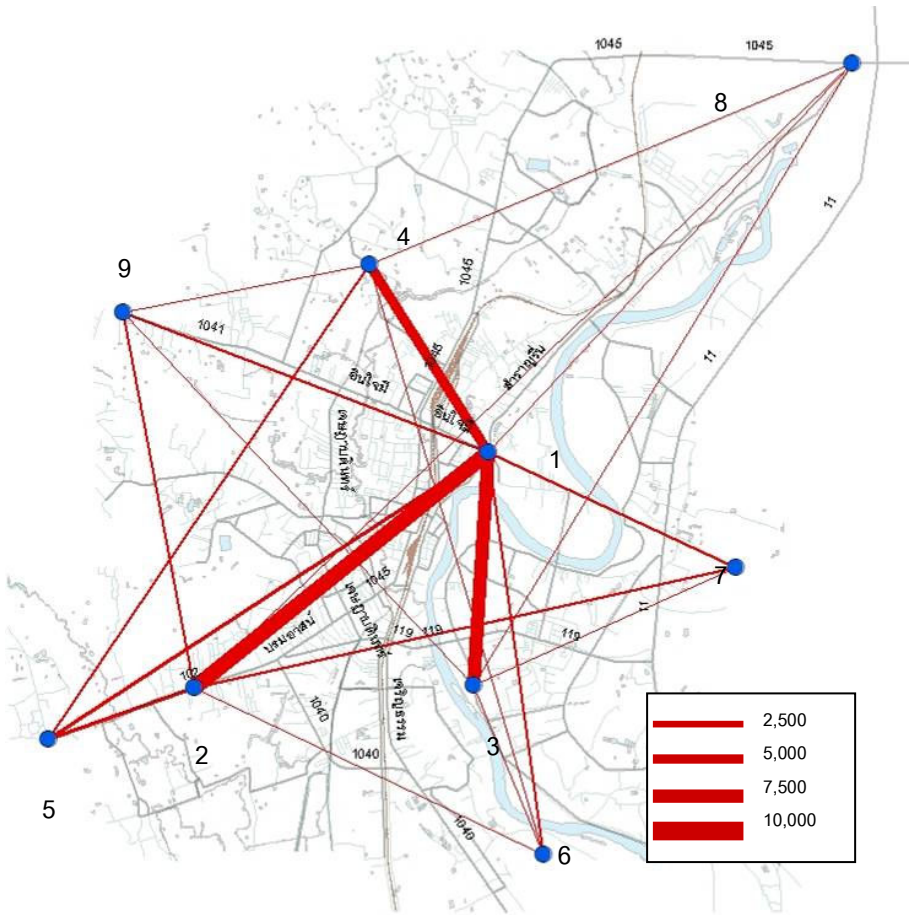


Figure 7.2-2 Desired line between zones in Uttaradit

- Future O-D Table (5,10 and 20 year)

Future Interzonal Demand according to each scenarios (Low, Medium and High Growth) for year 5th, 10th and 20th can be summarized in Table 7.2-1

Table 7.2-1

Future Interzonal Demand in PCU Unit.

year	Traffic demand (PCU Unit)		
	Low Growth	Medium Growth	High Growth
2551 (Base Year)	12,853	12,853	12,853
2556	14,190	15,634	17,198
2561	15,664	19,021	23,012
2571	19,094	28,156	41,212

Projects in Uttaradit transportation master plan

Projects related with transportation can be categorized into 3 groups, short term, medium term and long term as shown in Table 7.2-2 Figure 7.2-3

Table 7.2-2

Projects in transportation master plan

Plan	Projects
Short term (3 year)	1. Adjust traffic signals to correspond with traffic volume project 2. Parking control on rush hour 3. Short term road construction
Medium term (5 year)	1. Medium term road construction 2. Public transportation promotion to increase ridership 30%
Long term (10 year)	1. Long term road construction

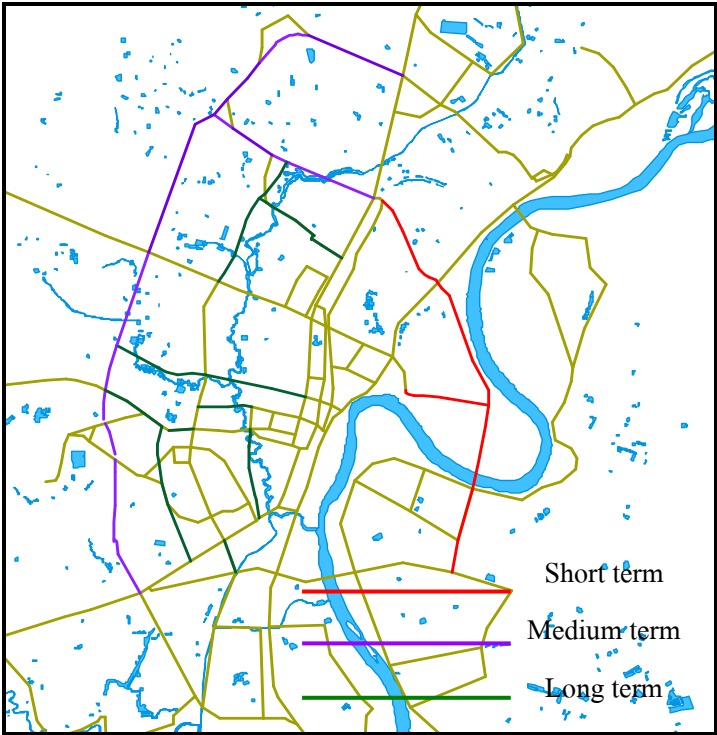


Figure7.2-3 Road construction Projects in transportation master plan

Effectiveness of transportation master plan

Index using for measure effectiveness of transportation master plan are based on vehicle kilometer travel (VKT) and vehicle hour travel (VHT), which shown in Figure...

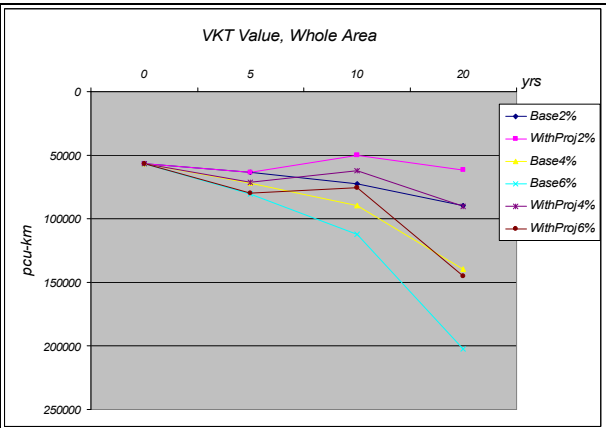


Figure 7.2-4 VKT for whole area

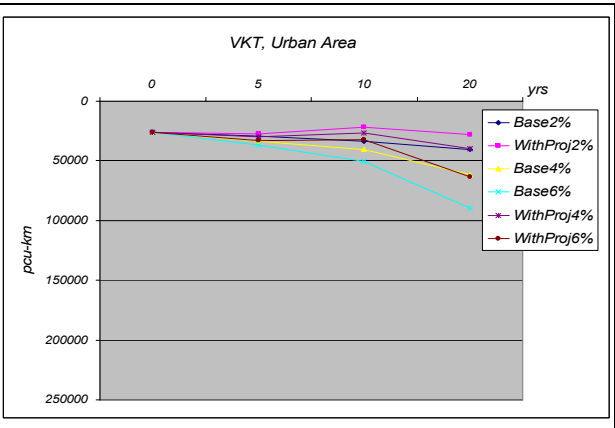
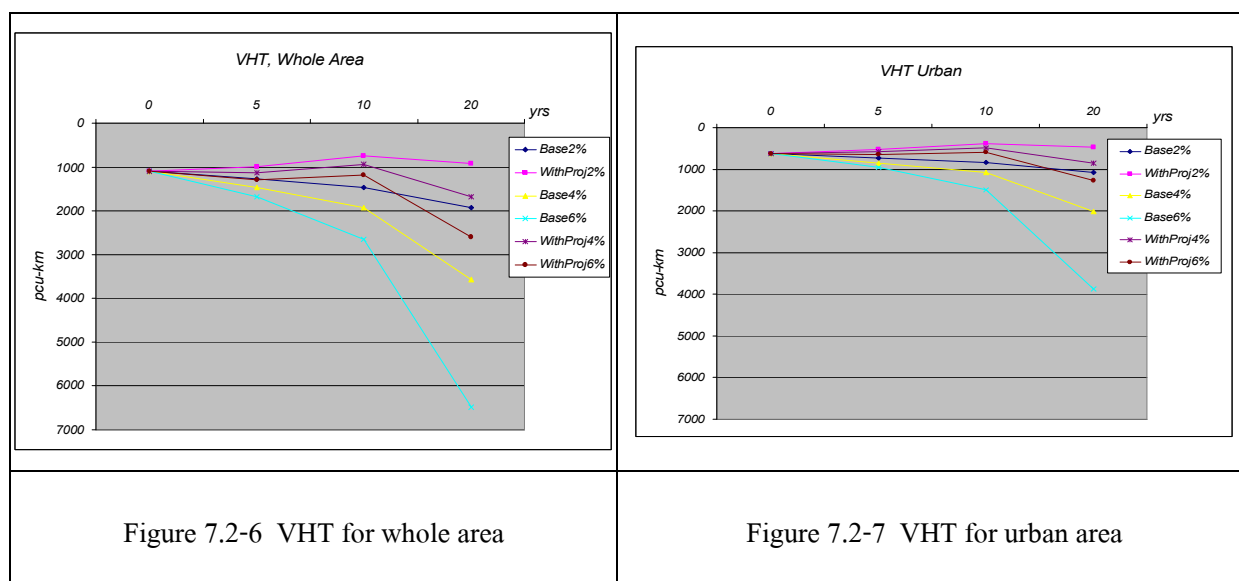


Figure 7.2-5 VKT for urban area



The V/C (Volume/Capacity) is used for evaluation traffic performance in road network, which can be shown in Figure7.2-8 Figure7.2-9

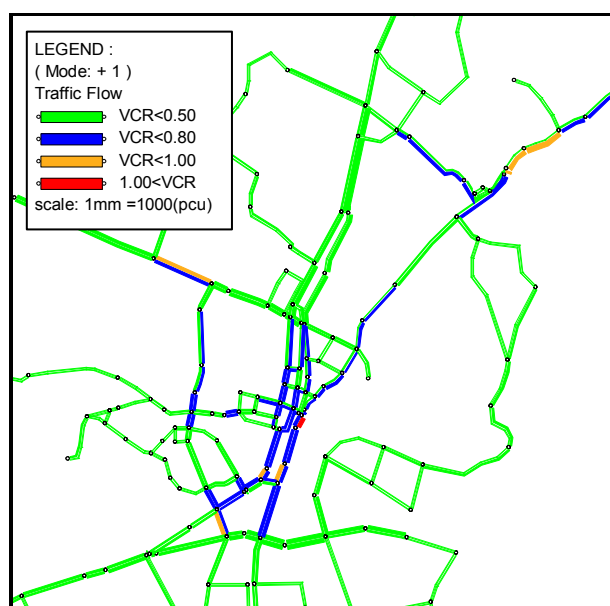


Figure 7.2-8 V/C Ratio for existing situation

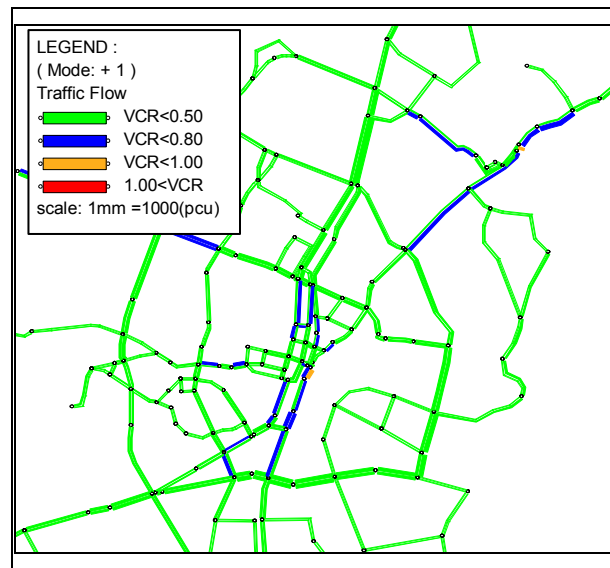


Figure 7.2-9 V/C Ratio for existing situation