CHAPTER VII

CONCLUSIONS

The following conclusions are drawn from the study of the degree of potential development achieved in selected remote areas served by feeder roads in Thailand.

1. Traffic on the Huptapong and Hua Hin-Nong Plub feeder roads is dominated by trucks and buses; three quarters of all vehicles on both feeder roads were trucks and buses.

2. Traffic volume on the two study feeder roads during the period 1972 to 1974 had a growth rate of 17 percent per annum. In 1975, traffic volume on both study roads sharply increased at a rate of 71 percent per annum. This is imputed to the large amounts of sugarcane being transported from the study areas to the factories in Prachaub Kririkhan, Petchaburi, and Ratchaburi Provinces.

3. Motorcycle trips in Hua Hin study area were found to be predominantly short (less than 30 km) with the main generator/attractor of these journeys being Hua Hin town.

4. Zone A--which comprises only a few places along the feeder road--was found to be the main generator/attractor (about 60 percent of all trips) of those journeys made by other passenger-vehicles in Hua Hin study area.

5. Trips made by passenger vehicles passing through the census station which are associated with journeys to work or to return home in the Hua Hin study area, accounted for nearly half of all passenger-vehicle trips.

6. The most frequently occurring occupancy (modal value) was two occupants per passenger vehicle. The median value of occupancy was two occupants.

7. Nearly half of the light-truck trips in both directions originated and terminated in Nong Plub Sub-district. The other half ran to or from placesin Hinlekfai Sub-district. Two-thirds of the light-truck trips passing through the census station originated and terminated in Hua Hin town.

8. Nearly 75 percent of the heavy trucks came from Nong Plub Sub-district. Nearly 30 percent of all the heavy-truck trips terminated or originated at the Dole factory. Only 25 percent of all trips originated from Hinlekfai Sub-district. A large fraction (60 percent) of the heavy-truck trips had destinations in the elsewhere north zone.

9. The predominant types of goods that were carried outward from Hua Hin study area are upland crops; charcoal, wood or bamboo; and spare parts or construction materials. Inward-bound loads were dominated by construction materials or spare parts. The dominant commodity carried outward was tinned pineapple.

10. Nearly two-thirds of the mini-bus passengers originated in Hinlekfai Sub-district. The remainder of origins in the rural

study area were from places in Nong Plub Sub-district. Most of the mini-bus passengers (about 93 percent) originated their journeys in Hua Hin town, and 92 percent terminated their journeys in Hua Hin town.

11. The predominant reasons for mini-bus passengers travelling outward were shopping and personal business. Inward-bound, the reasons were dominated by returning home and personal business.

12. It appears that the nearer to Hua Hin town, and the nearer to the study feeder roads, were the homes of travellers on mini-buses, the more frequent were their trips than those to or from the more remote places.

13. The agriculturists' trip-making rate was only slightly smaller than merchants, civil servants, and employees. The total passenger trips per month made by agriculturists was nearly half of all trips being made in the study area because of the large numbers of agriculturists.

14. The higher the level of education attained, the higher is the monthly rate of trip making. The highest fraction of total passenger trips per month was made by the group having primary school education, because of the large fraction of this group amongst the level of education attained in the study area.

15. The incomes of the farmers in the study areas were highly dispersed. The income distribution of the Hua Hin Land Development Project farmers was the most compact of the four income distributions studied.

16. The Hua Hin Project had the lowest non-farm income of the four study areas. The non-farm incomes of the other three study areas were nearly three times those of the Hua Hin Project.

17. It was found that the higher the income level the greater were the cultivated area and debt per family, and the greater were also the land value, fertilizer used, pesticide used, farm labour, farming equipment, and income per rai. Family residents and purchase of seed per rai seem to have no relationship to the net farm income.

18. From comparisons among the four study areas, road facility, hired vehicle availability, cultivated area, income per rai, yield, marketing availability, and fertilizer appeared to have positive correlations. Farm labour, soil quality and water availability appeared to have negative correlation with the net farm income. Road density, family residents, debt, deposits, and income before and after roads were constructed seemed to have no relationship to the net farm income.

Lack of investment funds, farm labour, and farming equipment were typical production problems that resulted in a decreased net farm income. Pests, land clearing, and floods seemed to not affect the net farm income. Inaccessibility and low prices for agricultural products were the two problems that resulted in marketing difficulties. Vehicle and customer availability seemed not to affect the net farm income.

19. It was found that the higher the net total income, the higher was the non-farm expenditure. The higher the farm income, the greater was the farm expenditure .

20. To determine the potential development of each study area, an achievement quotient was defined. All farmers were divided into two groups: (1) the high achievement group, those whose net farm income was greater than the 85th percentile level of all farmers in a given study area, and (2) the rest of the farmers. The achievement quotient was defined the ratio of the mean net farm income of the rest of the farmers in a study area to the 85th percentile level of net farm income for that study area.

The achievement quotient was found to reflect two important parameters: (1) the absolute levels of net farm income, and (2) the magnitude of the difference between the high achievement group and the rest of the farmers.

Rank order values of the achievement quotient for the four study areas are: (1) Hua Hin Project =59 percent; (2) Cha Am non-project = 26 percent; (3) Hua Hin non-project = 25 percent; and (4) Cha Am Project = 20 percent.

21. In the case of the high achievement farmers, it appeared that they had their houses and farms nearer the road than those of the rest of famers. The high achievement group also appeared to make more trips, to cultivate more land, and to earn

more net farm income per rai than the rest did. Their land values, the family residents who worked on the farm, and their maize yields were all greater than corresponding values for the rest of the farmers. The agricultural advisors met the high achievement group more often, and the high achievement farmers used more fertilizer, pesticide, seed, farm labour and farming equipment, and had more shares and deposits in cooperatives or banks. The distance from their houses to the farms, their debt and their credit seem to bear no relationship to their net farm incomes.