

Chapter 1

Introduction

1.1 The real-world problem and its social and economic significance

Myanmar is not only an ASEAN¹ member country but it is also a member of the GMS² (Greater Mekong Subregion) Program. It is located in a strategic position as a land bridge within the region, linking ASEAN countries with India as well as China. Among its neighbours, India and China are posting high growth rates, and Thailand is a newly industrialized developing country.

In the late 1980s, countries in the developing world, including Myanmar together with other late comers to ASEAN, started to open up their economies to the world economy. The transition process from centrally-planned to market-oriented economies is called the “Open-door Policy” in Myanmar, “The New Economic Mechanism (NEM)” in Laos, the “Rehabilitation and Reconstruction Program” in Cambodia and “Doi Moi” or “Economic Renovation” in Vietnam. The fundamentals are substantially the same – promoting foreign direct investment; deregulation of domestic and foreign trade; price and enterprise reforms; and structural adjustments in the agrarian and financial sectors.

¹ ASEAN – Association of Southeast Asian Nations – former ASEAN in 1967 – Indonesia, Malaysia, The Philippines, Singapore and Thailand, Latter – Brunei, Myanmar, Cambodia, Laos and Vietnam

² The Greater Mekong Subregion (GMS) comprises Cambodia, the People's Republic of China, Lao People's Democratic Republic, Myanmar, Thailand, and Viet Nam.

Table 1.1 Selected basic ASEAN indicators

as of 15 April 2010

Country	Total land area	Total population ^{1/}	Population density ^{1/}	Annual population growth ^{1/}	Gross domestic product ^{2/} at current prices	Gross domestic product per capita at current prices		International merchandise trade ^{4/}			Foreign direct investments infow ^{5/}	
	km ²	thousand	persons per km ²	percent	US\$ million	US\$ ^{2/}	US\$ PPP ^{3/}	Exports	Imports	Total trade	US\$ million	US\$ million
	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2009	2008
Myanmar	676,577	59,534.30	88	1.8	24,023.60	403.5	1,094.90	6,341.50	3,849.90	10,191.30	975.6	-
Cambodia	181,035	14,957.80	83	2.1	10,368.20	693.2	1,789.20	-	-	-	815.2	87
Lao PDR	236,800	5,922.10	25	2.8	5,742.00	969.6	2,396.10	-	-	-	227.8	122
Viet Nam	331,212	87,228.40	263	1.2	96,317.10	1,104.20	3,080.70	57,096.00	69,949.20	127,045.20	8,050.00	227.8
The Philippines	300,000	92,226.60	307	2	161,148.80	1,747.30	3,587.20	38,334.70	43,008.30	81,343.00	1,520.00	1,948.00
Indonesia	1,860,360	231,369.50	124	1.2	546,527.00	2,362.10	4,365.40	116,508.80	96,829.20	213,338.00	7,918.50	5,299.00
Thailand	513,120	66,903.00	130	0.6	264,230.10	3,949.50	7,940.80	151,364.70	134,124.60	285,489.30	9,834.50	5,518.30
Malaysia	330,252	28,306.00	86	2.1	191,618.40	6,769.50	12,258.10	156,704.30	123,183.80	279,888.10	7,318.40	9,271.40
Brunei Darussalam	5,765	406.2	70	2.1	14,146.70	34,827.00	45,816.60	7,168.60	2,399.60	9,568.20	239.29	834.5
Singapore	710	4,987.60	7,023	3.1	177,568.70	35,602.00	51,392.20	269,191.10	245,226.50	514,417.60	22,801.80	808,050.0
ASEAN	4,435,830	591,841.0	133	1.4	<i>1,491,690.6</i>	<i>2,520.4</i>	<i>4,847.4</i>	802,709.6	718,571.2	1,521,280.8	59,700.8	n.a.

Sources ASEAN Finance and Macro-economic Surveillance Unit Database, ASEAN Merchandise Trade Statistics Database, ASEAN Foreign Direct Investment Statistics Database (compiled/computed from data submission, publications and/or websites of ASEAN Member States' national statistics offices, central banks and relevant government agencies, and from international sources)

Symbols used

- not available as of publication time
n.a. not applicable/not available/not compiled
Data in *italics* is the latest updated/revised figure from previous posting.

Notes

1/ Refers to/based on mid-year total population based on country projections
2/ 2009 annual figures for Brunei Darussalam and Lao PDR are taken from the IMF WEO Database October 2009.
3/ Computed based on IMF WEO Database October 2009 estimates and the latest actual country data
4/ Data for Cambodia and Lao PDR is not yet available.
5/ Unless otherwise indicated, figures include equity, reinvested earnings and inter-company loans. Singapore data for 2008 covers only equity and reinvested earnings.
Data for Cambodia is up to Q1 2009 only while that for Lao PDR is up to Q2 2009.
All 2009 figures are preliminary.

Within the GMS region, Thailand's per capita GDP is higher than that of the others. Vietnam is currently trying to catch up with Thailand's per capita GDP with an impressive growth rate. Though Myanmar has a number of potential growth sectors in terms of trade, the tourist sector, cheap semi-skilled labour, comparable environmental quality, and rich natural resources, Myanmar is still reporting sluggish growth of the yearly GDP per capita. The basic indicators for the GMS region are shown in Table (1.1).

Table 1.2 HDI Index of ASEAN Countries

Country	HDI rank	HDI index	GDP (PPP) rank (IMF2010)	GDP(PPP) per capita rank (IMF2010)	GDP index	Life Expectancy Index	Education Index
Myanmar	132	0.583	78	161	0.389	0.596	0.764
Cambodia	131	0.596	103	145	0.552	0.55	0.691
Lao PDR	130	0.601	129	138	0.503	0.637	0.663
Indonesia	107	0.728	15	122	0.609	0.745	0.83
Viet Nam	105	0.733	40	128	0.572	0.767	0.815
Philippines	90	0.771	33	124	0.657	0.767	0.888
Thailand	78	0.781	24	89	0.745	0.743	0.855
Malaysia	63	0.811	29	58	0.783	0.811	0.839
Brunei Darussalam	30	0.894	118	5	0.941	0.862	0.877
Singapore	25	0.922	39	3	0.95	0.907	0.908

Source: HDI report, 2007 and International Monetary Fund (no date)

Although Myanmar has a potential domestic market of 59 million consumers, the majority of foreign industries are located in Thailand due to structural barriers and lack of infrastructure development within the region. With little power to attract businessmen to work on the Myanmar side of the border, foreign direct investment in Myanmar can be seen as one of the third lowest within the region. On the other hand,

Myanmar workers are willing to work in border area industries in Thailand because of the wage differential between Thailand and Myanmar.

Despite predictions in the early 1950s that Myanmar would be the great success story of future economic development, Myanmar in 2009 was considered to be a poor country with a low level of GDP per capita (PPP). According to 2003 US\$ (PPP) statistics, Myanmar is the lowest in the region with 1094 US\$ PPP. Comparatively, (see Table (1.1)), the difference between Myanmar and the second lowest, Cambodia, is almost double. In terms of UNDP's Human Development Index 2007, HDI, Myanmar is ranked 132 out of 149, behind all its ASEAN counterparts in demographic comparison (Table (1.2)). The social indicators are the lowest figures within the region except for the education index, so it is not surprising that Myanmar's overall GDP index is significantly lower than those of its neighbors. (See Table (1.2)).

During the late 1990s, the East–West Economic Corridor (EWEC) economic development program was initiated for the regional development of the four countries – Laos, Myanmar, Thailand and Vietnam at the Ministerial Conference of Greater Mekong Sub region (GMS), Manila, the Philippines. The program did not actually become operational until December 12, 2006.

Figure 1.1 The East-West Economic Corridor



Source: Asian Development Bank (no date)

The EWECC (Figure (1.1)) initiative intends to improve not only road infrastructure but also other transportation infrastructures such as rail, water, and air transport linkages. For example, the Singapore-Kunming Rail Link project covers part of the EWECC because the Mawlamyine-Thanyuayay-Three Pagoda Pass rail link connecting Myanmar and Thailand has been included in the EWECC flagship program. In the EWECC initiative, six core flagship transport projects, particularly the East-West

Transport Corridor, Water Transport Development, Railway Development, Air Transport Development, Cross-border Facilitation in the movement of goods and people, and Human Resource Development for the transport sector, were also identified for the East-West Economic Corridor.

Figure1.2 Asian Highway Networks



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Source: United Nations Economic and Social Commission for Asia and the Pacific, (no date).

In the meantime, the Asia Highway (AH) project, also known as the Great Asian Highway, was undertaken as a cooperative project among countries in Asia including Myanmar and the nations of Europe to improve the highway systems in Asia. Thirty-two countries have signed agreements to allow the highway to cross the continent and extend all the way to Europe has shown in Figure 1.2 (United Nations Economic and Social Commission for Asia and the Pacific, no date).

Despite the numerous problems and challenges with working among other countries, regional cooperation is an important part of the development process. Many development opportunities can proceed if neighbouring countries cooperate. In this specific cooperation, the exact designation of commercial routes across borders and the facilitation of infrastructure growth for cross border trade and investment have been accorded key roles in the emergence and strengthening of economic corridors in the region.

In the near future, due to agreements between Myanmar and its GMS neighbours, commercial vehicles from other GMS nations and from Asia and Europe are expected to pass into and out from Myanmar across the country's roads. Therefore, Myanmar should prepare for the opportunities and threats of that situation by building upon its comparative strengths and correcting or at least minimizing its relative weaknesses. These remain to be clearly identified.

1.2 The scientific problem its value and rationale

As the EWEC is connecting provincial economies from Da Nang, Vietnam to Mawlamyine, Myanmar, the present research is designed to examine empirically the effects of road infrastructure growth on economic development in Mawlamyine, Mon,

State, Myanmar. These effects will include the creation of jobs in the highway and transportation sectors; the creation and diversion of trade which had previously been carried out by sea; possible damage to the physical environment; and an inevitable but still unknown impact on the level and distribution of income in urban, rural and semi-urban areas. Measuring the income condition within and among household groups has therefore become an essential objective of the economic corridor as a step towards reducing poverty and income gap among groups.

There are several justifications for choosing Mawlamyine township for this study. First and most importantly, like Da Nang city in Vietnam, Mawlamyine lies at a terminal point of the EWEC.³ Unfortunately in the Myanmar case, only 18 km of the 200-km stretch from the Myawaddy border to Mawlamyine have actually been completed. Since this has been accomplished with granted aid from Thailand, and the Myanmar segment will occupy only 200 km out of 1450 km, we may presume that the impacts of the EWEC have been much less than those in Thailand which occupied 802 km out of 1450 km. Even when finished, previous projections indicate the 200-km portion inside Myanmar will support more savings in time than in actual travel costs (Myanmar Economic and Management Institute, 2007). Indeed, the survey report done by the Myanmar Economic and Management Institute (2007) has found that the present transportation cost on the Yangon – Myawaddy route is too high. Because of the poor condition of the road, transportation costs will be incurred around approximately US\$ 600 to send one Twenty-foot equivalent unit (TEU) container from Myawaddy to Yangon trip of 425km. The Myawaddy-Mawlamyine route will

³ It has been TRF (Thailand Research Fund)'s PhD scholarship Project for searching impacts of the East –West Economic Corridor which is one of regional network road that goes from Vietnam to Mawlamyine, Myanmar .

also cost nearly half of that cost, i.e., US\$ 300 for one TEU container. Transportation costs from Mae Sot to Danang port of Vietnam will be approximately around US\$ 300. To summarize in terms of costs along the EWEC, especially in the Myanmar side, the transportation cost is unlikely to be of much economic benefit.

Accessing the whole EWEC, which passes through all four countries, is still fairly difficult but the construction of key bridges, tunnels and road improvements has commenced and some are ready to use. In addition, although construction of the major sea port in Mawlamyine had been initially planned along with EWEC; currently the deep sea port project is scheduled to move to Dawei, the capital city of Tanintharyi⁴ Division, after planning shifted to two alternative sites⁵.

Still, Mawlamyine is an important candidate for a study site even though the plans for the deep sea port project have ultimately moved on to another site. The situation of Mawlamyine is of significant interest since it is a major transit city for domestic trade from south to north. Additionally, it is the capital city of Mon State,. Given the constraints on constructing a sea port and the current usefulness of Mawlamyine-Eindu route, which is part of the EWEC, the project might actually have had a negative effect on Mawlamyine's economic condition.

Furthermore, Mawlamyine was targeted to become a big trade city for border trade a full decade ago. Mawlamyine may still be considered as the town that will be able to regain its economic hub potential after the EWEC and Asia Highway. The problem is that very few studies have been done for either Mawlamyine or the entire

⁴ Tanintharyi Division lies at the southern end of Myanmar. The Division has common borders with Thailand on the east and south-east, Mon state on the north, and Andaman Sea on the west. Dawei is the capital of Tanintharyi Division.

⁵ Firstly it was planned in the Kalegawk island, Ye township which is very close to Tanintharyi Division and the project has not been put into action. Second planned place was in Yangon, Yangon Division. Finally, it has been decided to construct at Dawei in 2010.

Myanmar side of the EWEC. The present study aims to fill that knowledge gap. In addition, the use of Social Accounting Matrix methods, which will be employed in this research, for Myanmar is extremely rare and it is certain that no such analysis has been done for Mawlamyine.

For our research, as we are planning to set up the policy implications for a specific scope; a meso-economic planning framework related to the economic and social structure will be carefully constructed in terms of income and expenditure in Mawlamyine. In this study, income distribution and employment opportunities in Mawlamyine will be explored as well as initial shifts in production and specialization for trade that may have already started, or could be profitably developed in the future.

The research results to be presented in this thesis are based upon a survey carried out in May - July 2009 for households, firms and other institutions in Mawlamyine Township. These surveys gathered reliable data on income distribution, production patterns, trade and employment. In addition, we have assembled secondary data information to assess the impacts of road infrastructure development in Mawlamyine. We shall present a Social Accounting Matrix (SAM) to estimate the current and future benefits and contributions of households and firms. We hope that the results of this thesis will also stimulate further discussions at the township level in Myanmar as to how to best apply the findings of the study and to transform challenges to growth into opportunities for development.

As a backdrop to this study, we presume that better investment and trade openness could potentially create significant positive marginal impacts on economic development at the macro level. At the same time, investment could stimulate economic growth through more egalitarian income distribution, job opportunities, as

well as a better choice for consumer goods at the “meso” or intermediate level of the economy. We also conclude that export and investment growth are a major pull factor to upgrade Myanmar’s economic conditions, but that current obstacles severely reduce the realization of those benefits. Detailed multiplier analyses and social accounting matrix optimisation have been conducted to refine these predictions and confirm their empirical validity. Before Mawlamyine’s SAM construction, the seemingly unrelated regressions method has been applied to find out what kinds of factors are of importance in Mawlamyine Town’s food, transportation and healthcare consumptions. Additionally, poverty in Mawlamyine town has been paid attention to in the research since one of the objectives for implementing the economic corridor is poverty eradication throughout the region.

1.3 Goal and specific objectives of the study

The goal of the present research is to measure and forecast current and potential economic growth and job creation in key sectors of Mawlamyine; and to estimate the effects of these processes on the level and distribution of income per capita. As noted, this is because Mawlamyine has many favourable conditions such as the opening of the East-West Economic Corridor (EWEC) which will establish better transportation infrastructure and the road which will be the shortest route to go to Bangkok, Thailand from Myanmar before the plan for the Southern Economic Corridor has been extended. The assumption here is that, if Mawlamyine cannot transform these advantages into balanced, equitable, and sustainable development, then *a fortiori*, it will virtually impossible for less endowed regions of Myanmar to do so.

To achieve this overall goal, the research will proceed through the following five specific objectives:

- (1) Analyze the factors that affect households' economic condition and the distribution of income and well-being in urban, semi-urban and rural populations within Mawlamyine Township.
- (2) Confirm the potential vs. probable impacts on Mawlamyine in regards to growth in terms of income and employment condition.
- (3) Explore the conditions of inequality among rural, semiurban and urban area in Mawlamyine.
- (4) Optimize a strategy to open the economic system by reducing the hindrances to the condition described in Table (1.1 and 1.2). This will both support steps to further development and lessen problems of uneven distribution of income and job opportunities that may be expected from opening the EWEC
- (5) Make policy recommendations to the Myanmar government and production-marketing recommendations to the private sector in order to to harness the potential of Mawlamyine's strategic location and road access.

1.4 Research questions and hypotheses

In order to achieve these goals and specific objectives, the research will address nine fundamental questions:

- (1) Is there any statistically significant difference in the level and distribution of household income between rural, semi-urban and urban areas?
- (2) Do proximity to the EWEC or Asian Highway and/or involvement in the highway construction and transportation sectors significantly relate to the food,

healthcare and transportation consumption? If so, does consumption in this area increase or decrease in absolute and relative terms?

(3) What are the main determinants of food consumption and all non food expenditure?

(4) Is there a relationship between the EWEC and changes in household consumption expenditure patterns by economic class or degree of rurality?

(5) What are the incidence, depth, and intensity of absolute poverty within each area (rural, semi-urban, urban); and which should be targeted by development and welfare policies?

(6) Under what kind of conditions could the presence of the EWEC's effects on reducing income inequality be enhanced?

(7) What specific policies could be applied for improvement of households' income and employment? Could the same policy be applied for different groups of households if there any policy is needed?

(8) Under the ideal development plan, by how much could Gross Township Product be increased?

(9) What specific sectors of the economy should be promoted for specialization, and job creation; and which others should be significantly reduced to liberate investment capital, managers, and workers for that specialization?

In the process of answering these questions, the study will test, among others, the following hypotheses are:

(1) Proximity to the main road or part of the EWEC directly and significantly reduces the proportion of food consumption and transportation expenditure within overall household expenditure per capita.

(2) Better transportation and proximity to highways significantly increase the knowledge people can use to focus on their income and health care.

(3) There has been significant growth in equality of income in the Mawlamyine area.

(4) Overall income per capita and the number of jobs in the Mawlamyine area could increase by at least 25%⁶ if the above constraints were removed.

(5) The income, employment, and consumption multipliers of the road infrastructure and transportation-related economic sectors are significantly higher than for other sectors.

1.5 Scope of the study

Mawlamyine town has been emphasized as the geographical hub of our study. It would be logically unfeasible to survey the entirety of Mon State which has 2 districts – Mawlamyine District and Thaton District and 10 townships⁷. The temporal focus of the study is in 2008, the year in which the EWEC was supposed to have been finished and opened to connect the four countries Myanmar, Thailand, Laos and Vietnam.

The foremost constraint to this study is the unavailability of some data such as that related to trade and the profitability of medium and large enterprises. Moreover, the Myanmar economy is quite small compared with that of Thailand. Consequently,

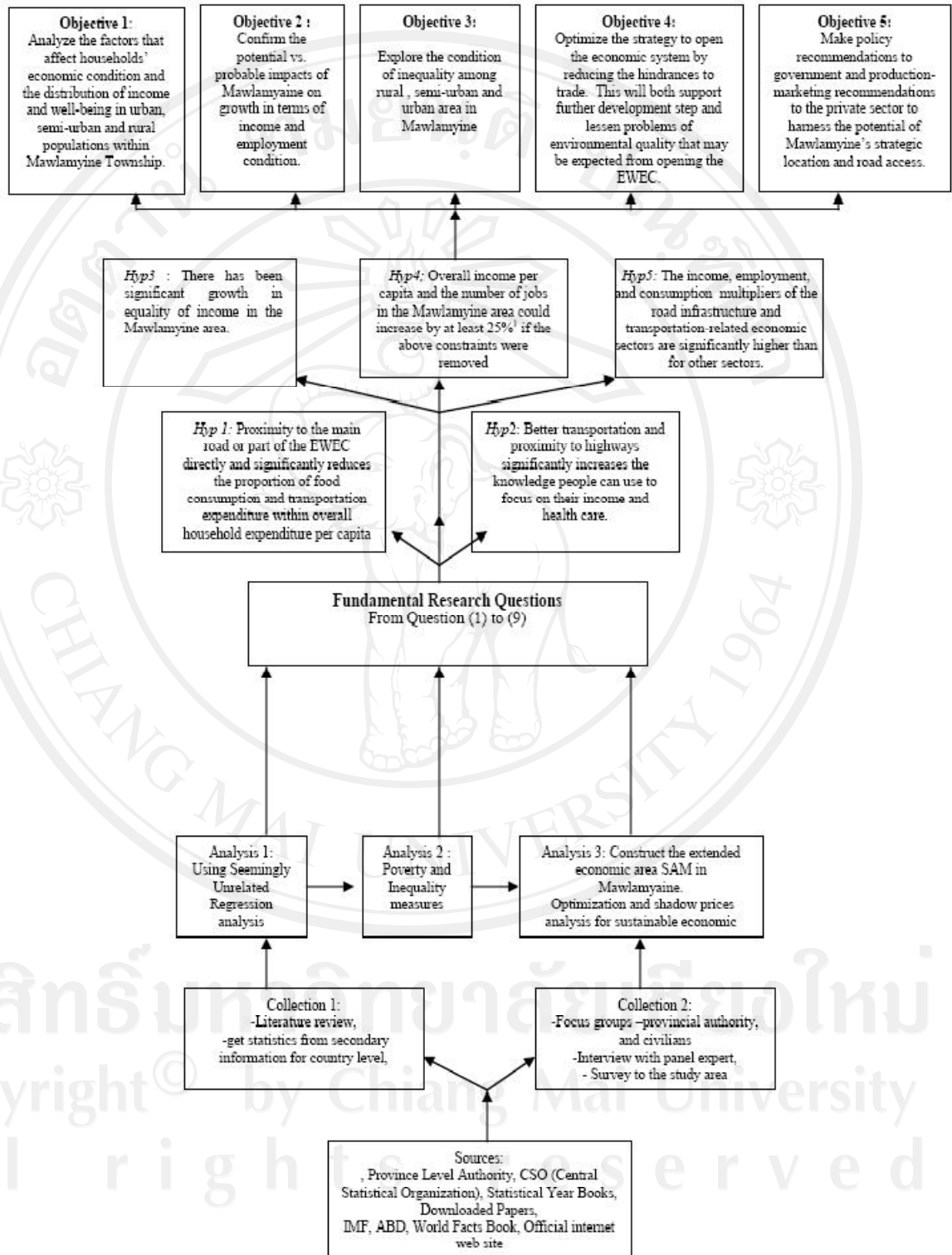
⁶ Since this part of the analysis will use the Social Accounting Matrix rather than econometrics, we cannot strictly speak of a statistical test of this hypothesis. Instead, we have set a reasonably large increase (25%) as a measuring stick to represent a significant improvement in various dimensions of the economy.

⁷ Mawlamyine, Kyaikmaraw, Chaungzon, Thanbyuzayat, Mudon, Ye, Thaton, Paung, Kyaikhto and Bilin

when we look at the economy of Mawlamyine town, is also economically underdeveloped despite its location as a domestic transit city in Myanmar.

Additionally, Myanmar is less technologically advanced than Thailand as the Myanmar economy still relies upon the agricultural and industrial sectors; services are not visibly enhanced. As road infrastructures are public goods, their contributions to the society by means of social benefits are theoretically much greater than the economic benefits in the long run. To the extent possible, the present study will evaluate the social (employment, income redistribution) vs economic (value added growth, specialization for trade) benefits through the Social Accounting Matrix. However, the main focus will remain upon the current and potential economic patterns of income and expenditures.

1.6 Conceptual diagram of the research system



1.7 Organization of the study

This thesis consists of seven chapters including this introductory chapter. Chapter (2) discusses the theoretical foundations linking poverty, infrastructure and economic growth. In addition, the economic importance of transportation has been discussed with references to previous studies. Chapter (3) provides an overview of Mawlamyine Township, Myanmar and gives the detailed survey procedures and data collection in Mawlamyine town. Chapter (4) presents the determinants of consumption items such as food, healthcare and transportation and their importance in Mawlamyine town. Chapter (5) details the policy implications on poverty and inequality in Mawlamyine based on our finding of poverty measures of income and consumption in Mawlamyine. Chapter (6) shows the multiplier and optimization results of the 2009 Mawlamyine Social Accounting Matrix and summarizes the main findings. Finally, Chapter (7) of the study shows policy implications for the town and discusses some questions which could not be answered within the scope of the present study.