YANGON UNIVERSITY OF ECONOMICS MASTER OF ECONOMICS

A STUDY ON SOCIO- ECONOMIC DEVELOPMENT OF AHPYAUK TOWNSHIP (2005-2017)

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A thesis submitted as a partial fulfillment of the requirements for the degree of Master of Economics (Economics)

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ABATRACT

Welfare of people depends on socio-economic conditions. Development of socio-economic conditions can show living standard of people. So, this thesis topic studies about Socio-Economic Development of Ahpyauk Township. Ahpyauk Township is one of the townshipsin in the Taikkyi Township. Since Ahpyauk Township can promote a part of the Myanmar Economy, a study on Socio-Economic Conditions. This study is based on descriptive method. This thesis objective is to explore the living standard of Ahpyauk Township. According to 2005-2006 to 2016-2017 GDP of Ahpyauk Township, Goods Sector was the largest share in GDP. In agricultural sector should be provided new technologies, fertilizers, machines and oils. In the education sector, the number of primary schools has been increased. It should be provided middle and high schools. In the health sector, more doctors and health care workers should be provided for the growing population. Ahpyauk Township would be improvements in doctor-population ratios and in the population per hospital bed ratio. Transportation and Communication sectors increased during the study period, no electricity in some village. To get the sustainable improvement in socio-economic development of Ahpyauk Township, the supporting of government sector and non-government organizations is necessary.

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ABBREVIATIONS

GDP Gross Domestic Product

CDMA Code Division Multiple Access

GAP Global System for Mobile Communication

HIV/AIDS Human Immunodeficiency Virus Infection and Acquired Immune

Deficiency Syndrome

TB Tuberculosis

KV Kilo Volts

Chapter I

Introduction

1.1 Rationale of the Study

Developing countries seek to implement the suitable strategies and policies for combination development for both urban and rural area as it plays the vital role for citizenry interests or national interests.

The main points of view to the intention to be fruitful result are alleviating poverty and unemployment, uplifting the education and health sector, searching for more development for agriculture, production and services sector, industrialization in rural area, and good communication and social safety network for all around development.

Social factors and economic factors are the mile stone of the development of a country. This study is to research about economy, socio-economy of Myanmar because of the Union of Republic of Myanmar becomes market oriented economy based country.

Most Economists agreed that the economy of a country based on the economic base and its super structure as administration, legislation. Nowadays, Myanmar adopted the market oriented economy and it is needed to analyze that the progress and development of socio-economy is to accommodate with the adopted policies. This study is reported to help to recover those needs.

This study is based on Ahpyauk Township, Taikkyi Township, and Yangon Region. Ahpyauk Township belonged to Ayeyarwaddy Region and its economy is based on rice production and fish paste and dried- fish. For now, Ahpyauk Township is belonging to Yangon Region but it still depends on rice production. Rice production is one of the main agriculture of Myanmar and the rice production of Ahpyauk Township takes a part of it. That is why this socio-economic study focuses on the agriculture of Ahpyauk Township. It will help the country to make policies for agriculture sector.

The technological development and usages of fertilizers are important to development of agriculture sector. Education sector need to develop for the usage of new technologies and machines, and skillful workers. This reason is the study of education sector and economic sector to the socio-economic development of Ahpyauk Township. Health and strong labor forces and bright children are very important

factor to development of production sector. New health staffs need to appoint to meet the growth of population. The need of health sector can be provided by the education sector.

The study is to know the socio-development of Ahpyauk Township, to make required development policies and projects, to provide aid about working force and population facts, economic, education and health.

1.2 Objective of the Study

The objective of the study is to explore the living standard of Ahpyauk Township.

1.3 Method of the Study

This study used the descriptive method that are based on secondary data from the General Administration Department of Ahpyauk Township, Immigration and Manpower Department Taikkyi Township, Department of Statistics and Farmland Management Taikkyi Township, Ministry of Agricultural and Irrigation Taikkyi Township, Department of Animal Husbandry Taikkyi Township, The Office of Education Taikkyi Township, Basic Education High School Ahpyauk Township, Health Department of Ahpyauk Township, Myanmar Agricultural Development Bank Taikkyi Township, papers and books from library and data from Internet Websites.

1.4 Scope and Limitation of the Study

The scope of the study is the socio-economic development progress of a town not as village, Township, District, Region or State. This limitation of the study is based on the progress data from (2005-2006) to (2016-2017).

1.5 Organization of the Study

This thesis comprises five chapters. Chapter 1 is the introduction with the rationale of the study, objectives of the study, scope and method of the study, and organization of the study. Chapter 2 is the Literature Reviews. Chapter 3 is overview on the Geographical and historical Background of the Ahpyauk Township. Chapter 4 shows the analysis on Socio-Economic Development of Ahpyauk Township. Chapter 5 describes findings of social and economic development and suggestion and considerations.

Chapter II

Literature Reviews

2.1 Meaning of Socio-Economic Development

Socio-economic is the process of social and economic development in a society. Socio-economic is measured with indictor, such as GDP, life expectancy, literacy and level of employment. Change in less-tangible are also considered such as personal dignity and freedom of association, personal safety and freedom from fear of physical harm and the extent of participation in civil society.

Socio-economic impacts are for example, new technologies, change in laws, changes in the physical environment and ecological changes. There is considerable disagreement over the meaning and measurement of socio-economic development and what actually constitutes true development. Socio-economic development refers to the ability to produce on adequate and growing supply of good and service productively and efficiently, to accumulate capital and to distribute the fruits of production in a relatively equitable manner.

Education and health are basic objectives of social development. Health is central to well-being and education is essential for a satisfactory and rewarding life. At the same time, education plays a key role in the ability of developing country to absorb modern technology and to develop the capacity for self-sustaining growth and development. Moreover, health is quite for increase in productivity while successful education can also been seen as vital components growth and development as inputs to the aggregate production function. Their dual role as both inputs and outputs gives health and education within countries is as important is income distribution life expectancy may be quite high for better off people in developing countries.

2.2 Economic Growth and Economic Development

Growth means horizontal and quantitative development .For example, a farmer owns more land for cultivation and a retail seller owns more stalls. Development means vertical and quality change and development. For instance, retail sellers become a manufacturer and a middle school has promoted into a high school.

Economic growth and economic development is different. Literary rate, life expectancy and poverty rate are development index and although GDP is the indicator of economic development, free time, environmental specification, freedom and law are

not included. Therefore it is deducted that any economic indicator cannot definite enough economic development.

The growth can be approached by two ways, operational and comparison. Example of operational is physical limitation in some organizations (insufficient of water for agriculture), economical limitations (falling price of the product) political limitations (no public decision right in the market). Those organizations operations can be changed depending on other organizations' responses.

Economic development includes all human evolution and development that is to say, elimination of poverty, absence of inequality and elimination of unemployment. Continuous development needs as political grantee, good governance, public affairs and management, continuous investment in infrastructure, tax change, independent position of Central Bank and practice financial policies, qualified leader's leadership and ethic, United Nations' acknowledged development index, Human Resource Development Index, Country's 3 basic pillars- Life expectancy, education assistance and per capita. Human Poverty Index are - mortality rate before age of 40, adult illiterate rate, and no public health care, no pure drinking water, and then malnutrition under age of five.

"Development economics has an even greater scope .In addition to being concerned with the efficient al location of existing scarce productive resources and with their sustained growth over time, it must also deal with the economic, social ,political, and institutional mechanisms, both public and private, necessary to bring about rapid (at least by historical standards) and large-scale improvements in levels of living for the peoples.

In many cases, economic calculations are heavily influenced by political and social priorities such as unifying the nation, replacing foreign advisers with local decision makers, resolving tribal or ethnic conflicts, or preserving religious and cultural traditions.

Development economics, to a greater extent than traditional neoclassical economics or even political economy, must be concerned with the economic, cultural, and political requirements for effecting rapid structural and Institutional transformations of entire societies in a manner that will most efficiently bring the fruits of economic progress to the broadest segments of their populations. It must focus on the mechanisms that keep families, regions, and even entire nations in poverty traps, in which past poverty causes future poverty, and on the most effective strategies for breaking out of these traps.

Development economics must be eclectic, attempting to combine relevant concepts and theories from traditional economic analysis with new models and broader multidisciplinary approaches derived from studying the historical and contemporary development.

Development economics is a field on the crest of a breaking wave, with new theories and new data constantly emerging. These theories and statistics sometimes confirm and sometimes challenge traditional ways of viewing the world. The ultimate purpose of development economics, however, remains unchanged: to help us understand developing economies in order to help improve the material lives of the Majority of the global population'.

2.3 Regional Development

Region is a homogenous area with physical and cultural characteristics distinct from those of neighboring areas. Regionalism property represents the regional idea in action as an ideology, as a social movement, or as the theoretical basic for regional planning. Regional planning might attract special attention either for political or humanitarian reasons because a country's overall development depends on the relative prosperity of all its regions.

The objective of regional studies is constituted by;(1) the processes of change in human activities as they occur in region; (2) the relationship between these processes and dynamics of spatial structures such as settlement systems; (3) the relationship between activities in the various regions of a country; (4) the effects of international relations upon these process and relationship, all with a view toward helping to bring about development.

Under this approach for regional development, the goals into specific sectorial objectives for the reference of difference bodies of the administration for various areas of focus, including:

-Economics (income growth, salaries increment, regional commercial balance, production, debt capacity, capital resource mobilization, co-financial capacity, market linkage, value chains, efficiency and geomarketing)

-Social (poverty reduction, public participation, cohesion building, gender equality, diversity, education, health and nourishment)

- -Cultural (historical centers renewal, historical and archaeological areas rescue and preservation, regional culture conservation and promotion, tradition and ancient knowledge promotion)
- -Administrative (social solidarity building, training functionality, reengineering, competitiveness and institutional building)
- -Management (decision making, priorities definition, negotiation, advocacy and strategic partnering)
- -Political (stability conflicts, settlement, legal impacts reduction, regional autonomy, national policies participation definition, strategic thinking, intelligence, influence and political partnering for development)
- -Physical (infrastructure, equipment and services, land management, spatial condition and geographical information systems)
- -Environmental (protected and buffer areas conservation, sustainable use of natural resources, cleaning of polluted water-bodies, environmental quality management and solid waste management)

2-4 The Importance of Economy and Social in Economic Growth

The economic development conditions are analyzed upon on the socioeconomic conditions of this country. This sustainable analysis will help the economic development of the country and making the policies. It will impact to change of the super structure as administration, legislation.

The vocabularies, economic development and economic growth, are look the same but the economic development has the wide definition than the economic growth. For example: economic growth looks like the growth of a human, height, weight and body but the development is the growth of the body with the mature mindset. Thus the economic development concludes quality and quantity of economic and social development.

The both economic and social sector must growth if an economy or a country or a region to be developed. There cannot be separated from economic and social sector.

The aims and objectives of the development policies have to be analyzed to harmony the development of economic and social sector which are under the project economy to the economic development. If the aims and objectives are not the harmonized with these economic and social sectors, the development of each sector will not be the same. Hence, both economic and social sector have to be considered at the same time.

United Nations Department of Economics and Social Affair claim that the importance of the comprehensive development of both social and economic sector. Each countries study how to make the policies and projects to the development social and economics.

The main objectives of the making policies and projects are listed as follow:

- 1. National income must increase to medium level to have a higher living standard of the country.
- 2. Establishment of industrialization that are focus on basic and large industry development.
- 3. Make sure to create the employment opportunities.
- 4. Reducing the income and wealth inequality.

In above objectives, the first and second objectives are concerned with the economic sector and the third and last objectives are concerned with the social sector. These objectives are connected with each other and must be comprehensive. The development of the economy may be delay if the only one objective was chosen to implement and that objective also won't be successful as expected.

The industrialization which is the important objective in development projects needs technicians, technocrats and professional skillful workforce for the industry. Labor can be divided into three types and they are skillful labors, semi-skillful labors and unskillful labors. Every kind of firm needs both skillful and unskillful labors to each kind. In developing countries, there can be found easily the unskillful labors but it is not easy to find the skillful labors.

In economic point of view, the economic progress can be analyzed from how much change the quantity of output in times, how much change in income. Uses of input have to be improved to increase the output. There are some kinds of changing input.

(1) Finding of New Resources

Finding of new resources make the positive impacts to the economic development. For example: finding of oil make the Brunei transform from the poor island country to a rich country.

(2) Capital Accumulation

Investment plays the very important role in economic development. Capital accumulation needs to investment. Saving leads investment. Capital accumulation leads to increase the productivity and to economic growth.

(3) Population Growth

Population growth is also important for economic development. Some countries have the explosion of the population but some countries do not have the enough human resource to utilize the having natural resource. For example, some western countries subsidize the new born of more children.

(4) Innovation of Production Technologies

Innovation of production technologies drives the economic development. The production technologies of technologies have progress and the industry have the new technologies. New technologies can increase the productivity and it makes the huge output. It can be lead to economic development. For example, in Myanmar, the rice production in traditional method make the output of 15 tin per acres but the new technologies like new species, fertilizers and tractors make the output increase to over 100 tin per acre. Hence, the innovation of new technologies leads the economic development.

(5) Improvement of the Skill of Labors

Improvement of the labor skills makes to increase the productivity. Less skill to use the modern production technologies and machines makes the low productivity but improvement of labor skill makes to increase the productivity. Thus, the improvement of labor skill helps to make an economic development.

(6) Changes of Organizational and Social Ideas

The reforms and changes of organizational and social ideas impact the economic development of a country.

Educational conditions help to economic development and there is a close relationship between Education and economic development.

The educational conditions make the economic development that can be seen in developed countries like United State of America, Japan, etc. the industrialization can be founded by expansion of expenditure on education in that counties.

The literacy rate and income per capita have a direct relationship. The high literacy rate causes the higher income per capita. The low literacy rate causes the low income level.

Investment in education can level up the social class. Rapid investment in education makes the high expectation for higher employment.

Upgrade of education and increasing educated to have employment is very difficult. In developing countries, the professional as nurses, technicians are more required than the graduated person. Many institutes need to produce technicians and professionals. To develop the technology, sanding scholar to developed countries, study in international technical exchange, buying new technologies are required to economic development.

A suitable education system required to provide required labor for the country. Expansion of opening school and making projects like elimination of illiteracy are important to economic development. Thus, education policies and planning plays important role in making national planning and policies.

Discussion of health education and self-cleaning and having discipline make the healthy labor required for country makes the economic development.

Health plays the short-term and long-term welfare of the people and plays an important role in economic development. The high productivity labors, healthy labor can increase the productivity. The productivity will decrease even skillful worker is not a healthy person. The health care system for labor and treatment is related with the education system.

In Myanmar, the Central Agricultural Research distributes the new species paddy to modernized paddy production and higher productivity. The required agronomists can be produced by the good education system. Hence, economic development is closely related to the education sector. Education plays important role for economic development and there is bidirectional relationship between economic development and education sector. Thus, as economy is very important to economic development and other social sectors are also important for economic development.

Hence, in this thesis, both economic sector and social sectors are studied in socioeconomic development of Ahpyauk Township.

2.5 The Role of Agriculture in Development

Agriculture is the basis sector for the livelihood of over 80 percent of the rural population in the developing countries. Agriculture is also the source of essential industrial raw materials and food for feeding human populations. Various cropping patterns of agricultural production are performed for manufacturing raw materials and

feed for livestock. In such agricultural production, land availability for cultivation and agro-climatic condition are regarded as a critical set of core applications of inputs. Agro-climatic condition may contain a number of sets of characteristics, relating to different soil types temperature and rainfall which are basic of crops production. In considering the extent of crops production, the-scale of farming defines how it is carried out and whether there is a place for commercial investors and accessibility of markets for specific products in both domestic and abroad. In this regard, subsistence farming and cash crop production methods are dominant and very different in the effects on livelihood and food security, even when they produce the same crops.

Subsistence farming refers to the most basic form of agriculture in which farmers grow just enough to feed themselves and their families or meet their basic needs with crops that aren't for human consumption. While subsistence farming is relatively uncommon in the developed world, it is still an important source of food for millions of people in developing countries. People who practice subsistence farming may or may not have access to crops from other sources.

Rural households in traditional societies can reduce their risk of food in security by producing their own food and diversifying their productive activities as much as possible. However, sown areas of crop land must mostly be used for the cultivation of (basic) food crops. Edible crops such as fruits and vegetables are both cash and food crops that can raise livelihood and food security. Cereals (mostly maize) and roots and tubers (mostly cassava and yam) also will raise livelihood and food security. The non-edible cash crops rubber and fiber crops (mostly cotton) will not have direct advantages in food security if the markets for those crops are distortive.

2.6 Barriers to Development

A western economist, Mayor, wrote that economic development needs the social and politics that are support to economic development but the culture, social and religion barriers can stop the economic development. The economists Voldwin and Mayor wrote that lack of capital input and skillful labors makes the barrier of economic development.

A French economist, Solve, argued that high motility rates, short life expediency, lack of nutrient, lower education level, lack of knowledge, low

employment opportunity, based on agriculture sector make the low level of economy in developing countries.

Natsi argued that narrow market has less attract to investment. Less investment can produce less output and this is one of the barriers to economic development.

Some economists considered that the economic behaviors of the people are more fundamental than the increase in investment and input that required reforms and changes for economic development, the traditional and cultural economy without modern and scientific production is the one of the barriers to economic development.

Without knowing that there are useful natural resources and other resources in the region, neglecting the technological innovation and lack of knowledge are barriers for regional economic development.

Less of financial capitals, no entrepreneurship, no machine and technologies, less skill in administration and organization cause produce specialized in labor intensive or land intensive primary crops and agricultural products is the major barrier for economic development.

Limitation of financial investment, less of storage, narrow market and lack of transportation cause the agriculture firms to low level of productivity and this is a barrier for economic development.

The study of the barriers to economic development aims to know the barriers to economic development and how to solve the problem of these barriers and try to economic development of the region. The government should lead to change and reform the social and economy to economic development.

Chapter III

The Profile of Ahpyauk Township

3.1 The Profile of the Region

Ahpyauk Township is situated on the west of Ayeyarwaddy River, on the east river bank. It is 5 miles away from Taikkyi along the Yangon-Pyay high way road, then the distance from Oo Do junction to Ahpyauk is 15.5 miles, therefore, the total distance is 20.5 miles. The name of the town derived from the language of Mon empire "AofHpa York" to "Ah PhaYawk" and then named as "Ahpyauk". It means " the port of Ngapi Trade" because there are many rivers, lakes, and creeks and that region is rich in fishery products such as Ngapi, dried fish. In the travel record of Kin Won Min Gyi, the town was written as "Ah Hpoaw". The town was over 150 years old and it was started by around 200-300 households. According to the "Dahmawalarthini" stone tablet of Pidonepate Monastery, it was recorded that the town was included in "Kuthima Part" when the empire of Mon was rising with three parts of land. By means of Hantharwaddy Part, according to the survey of the years 1145, 1146, 1164 by the king named Badone Min, Ahpyauk existed as a small town in 1285 among the three town of Hantharwaddy. In the past, Ahpauk was a large village of Zalon Township, Hinthada District, Ayeyarwaddy Region. Then in colonial age, the village was ruled as the water station by dividing into 3 parts along the dam from the period of the four villages cottage chief U Lu Maung (Ahpyauk, Yinn A, Zalon, Pine Kyone) to the period of cottage village chief U KyawHlaing. After the independence, Ahpyauk had own police station and became a town from a cottage. By the letter of the Ministry of Internal Affairs (No.101/23-241/3-D1) with the date 1.2.1999, it was changed from Zalon Township, Hinthada District, Ayeyarwaddy Region to Taikkyi Township, and became a town which is included in Taikkyi Township, Yangon Region.

Ahpyauk Township is one of the townshipsin the Yangon Region. The economy of Ahpyauk Township is based on agriculture business. Ahpyauk Township is rich in rivers, lakes and creeks, there are many people who are making their living with fishery. Communication and transportation are good. The main product is rice and it mainly sales to Yangon Division and other region. Edible oil and other consumer goods buy from upper Myanmar.

3.2 Location and Area

Ahpyauk is situated between North Latitude 17° 10′ and 17° 48′, East Longitude 95° 40′ and 96° 8′. Ahpyauk includes 4 ward and 10 groups of villages, and the area of Ahpyauk is as the following table.

Table 3-1 Types of Land of Ahpyauk in 2016-2017

No	Types of Land	Square Miles	Square Kilometers
1	Total area of the township	63.7	164.98
2	Area of Land	56.279	145.76
3	Area of Water	7.421	19.22
4	Area of Field	1.72	4.45
5	Urban area	1.15	3
6	Rural area	53.4	138.31
7	Road area	00.09	0.022

Source: Department of General Administration, Ahpyauk Township (2017)

According to table 3.1, the total area of Ahpyauk Township is 63.7 square miles (164.98 square kilometers).

3.3 The Boundary and Topography

Ahpyauk Township is bordered with Taikkyi Township in the east, Danuphyu Township of Ayeyarwady Region in the south, and Zalon Township of Ayeyarwady Region in the west and in the north.

The topography of Ahpyauk Township is flat and Ahpyauk River and Ayeyarwady River are flowing from north to south. Ahpyauk River and Ayeyarwady River are flowing in the west of Ahpyauk Township. They are fresh water and can be used as drinking water and water for cultivation. Such rivers are rivers where boats and ships can go through. There are fishery businesses in rivers and lakes, and Darpwe loch, Moeyarshae loch, Bhishar loch, Khannpyin loch, Zagar loch and

Yaelalgyi loch are running freshwater fishery business. The height above sea level of Ahpyauk Township is upper 100 feet.

3.4 Weather, Natural Vegetation and Natural Environment

Ahpyauk Township has hot and wet weather. Ahpyauk Township does not have teak, pyinkado and hardwood trees, it only has shaded and wind covered trees. There is no natural disaster effect on Ahpyauk Township. The maximum temperature is 40°C and the minimum temperature is 36°C. The rainfalls and temperatures that occurred yearly are displayed in the following table.

Table 3.2 Rainfalls and Temperatures

		Rair	ıfall	Temp	erature
No	Year	Raining	Total	Hot Season(°C)	Cold Season(°C)
		days	Rainfall	Maximum	Minimum
1	2005	106	104.10	42	32
2	2006	105	102.10	40	32
3	2007	106	104.25	42	36
4	2008	114	63.70	43	33
5	2009	108	102.10	42	36
6	2010	114	63.70	43	32
7	2011	118	104.10	44	32
8	2012	106	103.25	44	33
9	2013	114	102.10	40	36
10	2014	119	103.25	40	36
11	2015	105	102.10	42	36
12	2016	116	104.10	44	36
13	2017	118	102.25	40	36

Source: Department of General Administration, Ahpyauk Township (2017)

3.5 Ethnic Groups and Religions

Only Karen and Burmese ethnics live in Ahpyauk Township. There are 37143 Buddhist people, 1496 Christian people, 13 Hindu people and 423 Islamic people in

these two ethnic groups. Therefore, the total population of Ahpyauk Township in 2016-2017 is 38975. In studying religions of people who live in Ahpyauk Township, most of the total population of the Township is Buddhists and Christian people are in second most. Islamic is the third most and there are few people whose religion is Hindurism.

Table 3.3 The Number of Religion Idol in Ahpyauk Township

No	Types	Total quantity
1	Pagoda	3
2	Monastery	44
3	Nuns' Monastery	1
4	Preaching hall	21
5	Monk	117
6	Nun	7
7	Young monk	38
8	Church	5
9	Mosque	1

Source: Department of General Administration, Ahpyauk Township (2017)

In Ahpyauk Township, there are 4 pagodas, 33 monasteries, 1 nun monastery, 21 preaching halls, 5 churches and 1 mosque. The number of monks is 117, that of nunsis 7, and that of young monks is 38. The number of Buddhists in Ahpyauk Township is more than other religions.

3.6 The Population Condition of Ahpyauk Township

Ahpyauk Township is a town which is included in Taikkyi District of Yangon Region. The population of Ahpyauk Township from 2005-2006 to 2016-2017 is shown in following table according to the age classes.

Table 3.4 Population by Groups of Age (2005-2006 to 2016-2017)

	2016-	2017	9743	M	23385		5847		611.85
	2015-	2016	9704		23289		5822		609.34
	2014-	2015	9682		23239		5810		608.02
	2013-	2014	9636		23128		5788		605.13
	2012-	2013	9635		23124		5781		605.01
	2011-	2012	9620		23086		5772		604.05
	2010-	2011	9631		23113		5778		604.74
(/107-01/	2009-	2010	9621		23089		5772		604.11
7 01 0007-	2008-	2009	9594		23024		5757	CV CO3	002.43
18c (2007)	2007-	2008	9563		22950		5737		600.43
oroups or r	2006-	2007	9529		22867		5717		598.32
(/107-0107 01 0007-0007) ago to adula (2010-0010)	2005-	2006	1947		22791		6695		596.34
٠ ١	Age Grouns	ednor est	Under 15 years old	15.50 170015	old	Above 60	years old	Population	density
	N		н		2		n		4

Source: Department of Immigration and Manpower, Taikkyi Township (2017)

According to the table 3.4, the population between the ages 15 and 60 is the most and under 15 is the second most. The population upper 60 is the least in Ahpyauk Township. Since being much quantity of population between the ages 15 and 60 is being much quantity of population that is able to work, it assists economics to develop. According to the population data of 2005-2006, the total population of Ahpyauk Township was 37987, and then 38975 in 2016-2017. The population increased 2.6%.

3.6.1 Houses and Households

Ahpyauk Township is a town which is formed by 4 downtown wards, 10 groups of villages with 50 small villages. The total household is 8296 and total house is 8068. In 4 urban wards, there are 2539 houses and 2603 households. In rural parts of the township, there are 5693 houses and 5529 households. Since Ahpyauk Township has peace and tranquility, there is no territory color discrimination.

3.6.2 Humanitarian Assistance

Karen and Burmese are living in Ahpyauk Township. Buddhists, Christians, Hindu, and Islam are living in Ahpyauk Township. The growth of the population of Ahpyauk Township is shown in following table.

Table 3.5 The Population Of Ahpyauk Township

			T					T			T	·
	2016-	2017	11075	5204	5871	27900	13600	14300	38975	18804	20171	611.85
	2015-	2016	11035	3183	5852	27780	13550	14230	38815	18733	20082	609.34
	2014-	2015	11021	5175	5846	22710	13500	14210	38731	18675	20058	608.02
	2013-	2014	11006	1568	5838	27541	13351	14190	38547	18514	20025	605.13
	2012-	2013	11011	5170	5841	27529	13359	14170	38540	18529	20011	605.02
	2011-	2012	11001	5165	5836	27477	13347	14130	38478	18512	19966	604.05
	2010-	2011	10992	5160	5832	27530	13340	14190	38522	18500	20013	604.74
	2009-	2010	10977	5152	5825	27505	13325	14180	38481	18477	20005	604.11
	2008-	5000	10775	2000	5775	27000	13000	14000	38375	16994	21381	602.43
	2007-	2008	10600	4900	5700	25250	11750	13500	38250	16941	21309	600.47
1	2006-	2007	10200	4700	5500	24050	11050	13000	38113	16900	21213	598.32
	2005-	2006	0886	4500	5350	22000	10500	11500	37987	16850	21137	596.34
	Gaender		Population	Male	Female	Population	Male	Female	Population	Male	Female	
	Location		Urban			Rural			Total	2		Population Density
	%				e e	2			3			4

Source: Department Of Immigration and Manpower, Taikkyi Township (2017)

3.7 Work Force and Employment

Work Force includes in an important role for development. Creating job opportunities to become a qualified employment can cause the long-term development. There are 23885 employees who are aged between 15 and 59 years. Since the total population of 2016-2017 was 38975, the labor power was 61.28%. The quantity of jobless was 15590 and percentage of unemployed was 40%. Students and monks are included in this jobless. Employees include government staffs, farmers, livestock workers, industry workers, service workers, daily paid workers and abroad workers. Farmers are most of the work force. 70% of total work force is farmers and livestock workers. Since agriculture is mainly being carried out in Ahpyauk Township, other job opportunities are needed to be created. Social economy will develop more only if there are plenty of employment opportunities.

Types of jobs are involved in main supply of the economy of a country to develop. The power of skillful labor power is the main thing for economic development and job opportunity. The total population within the country can be divided into employees and dependences. Being less in dependences is the way for economic development to develop. Although there are many job occupation sectors in Ahpyauk Township, the majority occupation is the agriculture. In 2016-2017, 70% of the population of Ahpyauk Township works at agriculture, livestock and fishery, and then government staffs and private business staffs are about 30% of the population. Among the total population 38975, 23385 are labors who are between 15 years and 60 years.

3.8 The Form of Land Utilization

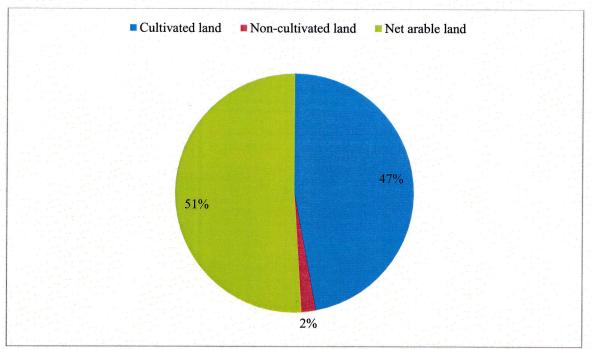
The area square mile of Ahpyauk Township is 63.7 and as the acre, 40767. The form of land utilization of Ahpyauk Township includes arable land and non-arable land. There is restricted forest and wasteland. The net arable land is the widest and it is about 50.47% of the area of the township. The cultivated land is 24.46% of the area of the township. The non-cultivated land is 2.35% and it is the least amount in acre. The form of land utilization is described as follow.

Table 3.6 Form of Land Utilization (2005-2006 to 2016-2017) (Acre)

		The second secon												
2	Trings of Land	2005-	-9002	2007-	2008-	2009-	2010-	2011- 2012-	2012-	2013-	2014-	2015-	2016-	From of Land
	Types of Laliu	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	Utilization o 2017(%)
-	Net arable of Land	24167	24167 24167 24167	24167	24167	24167 23605 23605		23605	23605 23605	23605	23605	23605	23605	50.47
2.	2. Cultivated Land	21500	21500	21500	21500	22062	22062	22062	22062 22062	22062	22062	22062 22062	22062	47.17
3.	3. Non-cultivated Land	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	1100	2.35
4	4. Total Land	46767	46767 46767 46767	46767	46767	46767	46767	46767 46767 46767 46767 46767 46767 46767 46767 46767	46767	46767	46767	46767	46767	100
							-	1	1					

Source: Department of Statistics and Farmland Management Taikkyi Township, (2017)

Figure 3.1 The Form of Land Utilization (2005-2006 to 2016-2017)



Source: The Department of Statistics and Farmland Management, Taikkyi Township (2017)

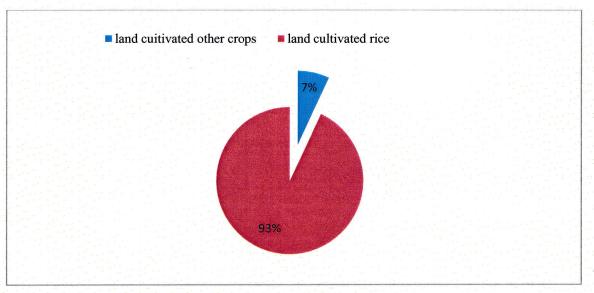
According to the Table 3.6 and Figure 3.1, the total land of Ahpyauk Township is 46767 acre. In 2016-2017, the net arable land was 23605 acre and that was the 50.47% of total land area. Crops which are cultivated in Ahpyauk Township are rice, matpe, corn, groundnut, sunflower seeds, sugarcane, coconut and many kinds of vegetable and flower.

Table 3.7 The Area of the Net Arable Land of Ahpyauk Township

L														i i
		2005-	2006-	2007-	2008-	2009-	2010-	2011-	2012-	2013-	2014-	2015-	2016-	Net
Z	No Types of Land	2000		3000	0000	2010	2011	2012	2012	2017	2005	2000	2017	Arable
		7000	7007	7000	7007	0107	1107	7107	5107	4107	5107	2010	/107	Land (%)
	1. Land Cultivated	21500	21500 21500 21500	21500	21500	23062 23062	22062	2000	2000	13061 13061	23062	22062	22062	02.5
	Paddy	71200	71200	00017	71200	70077	70077	70077	70077	70077	70077	70077	70077	73.3
(1	2. Land Cultivated	2330	2330	2370	1330	1543	1542	1542	1512	1542	1542	1542	1542	3)
	Other Crop	7007	/007	7007	/007	1343	1343	1343	1343	1343	1343	1343	1343	0.0
(,)	Total Land	24167	24167 24167 24167	24167	24167	23605	23605 23605	23605	23605 23605	23605	23605	23605	23605	100

Source: Department of Statistics and Farmland Management Taikkyi Township (2017)

Figure 3.2 The Area of the Net Cultivated Land of Ahpyauk Township (2016-2017)



Source: The Department of Statistics and Farmland Management, TaikKyi Township (2017)

According to the table 3.7 and figure 3.2, the net cultivated area of Ahpyauk Township in 2016-2017 is 23605 acre and it is 93% of the net arable land area. Land which cultivates other crops is only 7%. Therefore, paddy cultivated area is the most in Ahpyauk Township.

Chapter IV

Study on the Socio-Economic Development of Ahpyauk Township

4.1 Development of Economic Sector

In studying the economic sector of Ahpyauk Township, farming sector is the most important. 70% of the total labor quantity is making their living with agriculture. It was observed that rice is mainly cultivated in agricultural business. Since Ahpyauk Township is rich in rivers, lakes and creeks, there are many people who are making their living with fishery. 10% of the labor power of the township is working at fishery. Industrial businesses are not as developed as to study. As industrial business, only rice mills are found since rice production is mainly worked. Therefore, the development of industries depends on the raw materials of the region. The economy of Ahpyauk Township is based on agriculture.

4.1.1 GDP in Ahpyauk Township

In studying about economic development, the role of per capita income and GDP is important. Economic growth refers to quantitative changes and is usually measured output is GDP and is defined as the value of the final goods and services produced in an economy during a year. Therefore, GDP is crucial to economic sector.

Therefore, to study the rate of growth of GDP and per capital income of Ahpyauk Township is required. GDP and the rate of growth of GDP of Ahpyauk Township can be seen in table 4.1.

Table4.1 Real Gross Domestic Product in Ahpyauk Township (2005-2017)

(Kyat Million)

250.4 58.1 350.7 59.7 995.0 68.2	7 340.8	4608.6 4751.2 5413.4	3.09
995.0 68.2			
	350.2	5413.4	13.04
27.9		1	13.74
10.5	9 498.1	5596.9	3.39
528.1 72.1	527.6	6127.8	9.46
897.0 85.7	550.5	6533.2	6.62
97.9	695.7	6843.9	4.76
250.6 109.8	8 797.2	6857.6	0.20
550.2 115.	7 802.0	7567.9	10.36
95.3 119.5	5 870.1	7684.9	1.55
00.5 120.7	7 925.8	7747.0	0.81
25.7 158.2	950.7	7834.6	1.13
	728.1 72.1 797.0 85.7 50.3 97.9 50.6 109.1 50.2 115.1 95.3 119.3 00.5 120.7	728.1 72.1 527.6 797.0 85.7 550.5 50.3 97.9 695.7 50.6 109.8 797.2 50.2 115.7 802.0 95.3 119.5 870.1 00.5 120.7 925.8	728.1 72.1 527.6 6127.8 897.0 85.7 550.5 6533.2 50.3 97.9 695.7 6843.9 50.6 109.8 797.2 6857.6 50.2 115.7 802.0 7567.9 95.3 119.5 870.1 7684.9 00.5 120.7 925.8 7747.0

Source: Planning Department Taikkyi Township (2017)

From Table 4.1 the rate of growth of GDP of Ahpyauk Township from 2005-2006 to 2016-2017 can be studied. According to the table 4.1, Ahpyauk Township production is increasing from year after year. In 2016-2017, its goods, services and trade sector become sharply increased. So, GDP growth rate was increasing rapidly from 3.09% in 2006-2007 to 13.94% in 2007-2008 and from 0.20% in 2012-2013 to 10.36% in 2013-2014. Its goods sector is the largest. Thus, GDP growth rate of Ahpyauk Township may be due to its goods and trade sector more than services sector. GDP is a macroeconomic measure of the value of economy adjusted for prices changes.

4.1.2 The Agricultural Sector

1 The Situation of Paddy Cultivation

It was already known that the main crop of Ahpyauk Township is paddy. Types of paddy are Sinn Thukha, Wati Tun, Yar Kyaw Phyu, ByawTun, Hmawbisan, Shwepusan, Manaw Thukha, Manaw Doon, Shweah Tun, stiky paddy and Kauk Kyi.

They are cultivated as monsoon paddy since they are high yield rice. YarKyawPhyu and Shwepusan are mainly cultivated in low land because they are resistant to the floods. Since there is no irrigation, monsoon paddy is mainly cultivated. By the order of the Ministry of Agriculture and Irrigation of Taikkyi Township, summer paddy was started to cultivate about 250 acres as the typical acre since 2015-2016 by using GAP (Good Agricultural Practice) method.

Table 4.2 Paddy Cultivation

No	Year	Cultivated Acre	Harvested Acre	Yield Per acre	Yield (Bsk)
1	2005-2006	14890	9870	80.2	791574
2	2006-2007	15403	15403	75.3	1159846
3	2007-2008	17068	17068	75.2	1283514
4	2008-2009	17901	17901	75.6	1353316
5	2009-2010	20150	19842	75.2	1492118
6	2010-2011	20150	20150	80.3	1618045
7	2011-2012	21450	21450	80.5	1726725
8	2012-2013	21542	21542	80	1723360
9	2013-2014	22062	21340	75.5	1611170
10	2014-2015	22062	20980	75.2	1577696
11	2015-2016	22062	21745	75.2	1635224
12	2016-2017	22062	21949	75.3	1652760

Source: Ministry of Agriculture and Irrigation, Taikkyi Township (2017)

According to table 4.2, the paddy production of Ahpyauk Township in 2005-2006 was 791574 Bsk and yield per acre was 80.2 Bsk. In 2006-2007, the total yield was 1652760 Bsk and its Bsk per acre was 75.3 Bsk. During 2005-2006 and 2016-2017, the cultivated acre increased to 7172 acres and the yield increased to 861186 Bsk. Most farmers cultivate rice types such as Sinn Thukha, YarKyawPhyu since they are good at production rate and weighted. As Myanmar mainly consume rice, paddy

cultivation is mainly being carried out. Later 1988 that market economic system had been act, trading between one country and another started. For Myanmar, rice is the product which can earn foreign income at most. Therefore, the main income of Ahpyauk Township is earned from agriculture since Ahpyauk Township is mainly carrying out agriculture.

2 Oilseeds Cultivation

In Ahpyauk Township, sunflower seed and groundnut are mainly cultivated as oilseeds. The groundnut cultivated acre in 2016-2017 is 27 acre. And sunflower seed cultivated acre is 110 acre. The form of sunflower seeds cultivation is not private plantation, it is the mixed cultivation with matpe.

Table 4.3 Types of Cultivated Crops

	2016-	2017	22062	22062	250	174	27	19008	32	251
	2015-	2016	22062	22062	250	1	20	19892	35	260
	2014-	2015	22062	22062	ı	1	20	20018	48	234
	2013-	2014	22062	22062		1	14	19189	48	213
	2012-	2013	21542	21542	1	120	18	19000	37	200
	2011-	2012	21450	21450	ı	58	15	19095	35	198
	2010-	2011	20150	20150		80	12	19820	50	223
	2009-	2010	21150	20150		80	8	18150	45	211
	2008-	2009	17901	17901		81	15	16200	88	186
	2007-	2008	17068	17068	g	54	6	15800	55	194
olps	2006-	2007	15403	15403		18	12	14200	48	172
uvaicu Ci	2005-	2006	14890	14890		32	10	14000	35	172
T.5 13 pcs of Cultivated Clops	Types of Crops	1	Paddy (Total)	Paddy (Monsoon)	Paddy (Summer)	Corns	Groundnut	Matpe (Bean)	Other Beans	Vegetable
14010	No			-:		2.	3.	4	5.	6.

Source: The Ministry of Agriculture and Irrigation. Taikkyi Township, (2017)

In table 4.3, the mainly cultivated crops of Ahpyauk Township displayed. Ahpyauk Township is a region where mainly cultivates rice in rainy season and matpe in cold season. Paddy cultivated area is at most. Together with the increase of paddy cultivated area, yield per acre increased to 75.3 bsk and total yields was 1652760 bsk. The yield per acre of 2005-2006 was 80.2 bsk and that of 2016-2017 was 75.3 bsk, it decreased due to the flood. That yield per acre 75.3 bsk was also the average yield of the total paddy cultivated land of 2016-2017. The cultivated acre of corns and groundnut increased and that of matpe, other beans and vegetable decreased. The total yield must increase as the cultivated area was extended to increase yield. In paddy cultivation, using supply such as land, labor, capital, fertilizer, insecticide and technique in time is important. Agriculture can be successful only if modern agricultural techniques are applied.

Table 4.4 Earning Crops Cultivation and Production in 2016-2017

		2016	-2017	2016-2017				
No	Crops	Acre		Cultivated	Harvested	Yield	Yield	
		Ac	cre	Area	Area	Per Acre	(Bsk)	
1	Paddy	Hot	250	250	250	100	25000	
	(Season	230	200	230	100	2000	
		Rainy	22062	22062	21949	75.3	1646275	
		Season	22002	22002				
2	Groundnut	Rainy	4 00	_		-	s -	
		Season		9				
		Cold	27	27	27	60	1620	
	×	Season			21	00		
3	Sunflower		110	110	110	5	550	
	Seeds	-						
4	Matpe	Cold	19008	19008	19008	10	190080	
		Season						
5	Corns		174	174	174	60	10440	
	w	-						

Source: The Ministry of Agriculture and Irrigation, Taikkyi Township (2017)

According to table 4.4 during the year 2016-2017, the main earning crops were cultivated paddy, groundnut, sunflower seeds, matpe, corns. The cultivated area of hot season paddy was 250 acres, harvested area was 250, yield per acre was 100

and total yield was 25000. The cultivated area of rainy season paddy was 22062 acres, harvested area was 21949, yield per acre was 75.3 and total yield was 1646275. The cultivated area of groundnut was 27 acres, harvested area was 27, yield per acre was 60 and total yield was 1620. The cultivated area of sunflower seeds was 110 acres, harvested area was 110, yield per acre was 5 and total yield was 550. The cultivated area of matpe was 19008 acres, harvested area was 19008, yield per acre was 10 and total yield was 190080. The cultivated area of corn was 174 acres, harvested area was 174, yield per acre was 60 and total yield was 10440. This cultivation earned the main income.

Table 4.5 Other Earning Crops Cultivation and Production in 2016-2017

No	Crops	Cultivated Acre	Harvested Acre	Yield Per Acre (Peittha)	Yield (Peittha)
1	Betel Leaf	83	83	4580	380140
2	Wet Chili (Rainy Season)	20	20	385	7700
3	Wet Chili (Cold Season)	20	20	826	16520
4	Dry Chili (Cold Season)	34	34	600	20400
5	Sweet Potato	12	12	2800	33600
6	Taro	15	15	2750	41250
7	Vegetables	251	251	3249	815499

Source: The Ministry of Agriculture and Irrigation, Taikkyi Township (2017)

In table 4.5, during the year 2016-2017, other earning crops was Betel Leaf, Wet Chili (Rainy Season), Wet Chili (Cold Season), Dry Chili (Cold Season), Sweet Potato, Taro, Vegetables. The cultivated area of Betel Leaf was 83 acres, harvested acre was 83 acres, yield per acre was 4580 peittha and 380140 peittha. The cultivated area of Wet Chili (Rainy Season) was 20 acres, harvested acre was 20 acres, yield per acre was 385 peittha and 7700 peittha. The cultivated area of Wet Chili (Cold Season) was 20 acres, harvested acre was 20 acres, yield per acre was 826 peittha and 16520 peittha. The cultivated area of Dry Chili

(Cold Season) was 34 acres, harvested acre was 34 acres, yield per acre was 600 peittha and 20400 peittha. The cultivated area of Sweet Potato was 12 acres, harvested acre was 12 acres, yield per acre was 2800 peittha and 33600 peittha. The cultivated area of Sweet Potato was 12 acres, harvested acre was 12 acres, yield per acre was 2800 peittha and 33600 peittha. The cultivated area of Vegetables was 251 acres, harvested acre was 251 acres, yield per acre was 3249 peittha and 815499 peittha. This cultivation in Ahpyauk Township has exceeded the local consumption. The income is earned as another way by cultivating this crops.

4.1.2 Livestock and Fishery Sector

Livestock and fishery are also being carried out in Ahpyauk Township. In livestock, only the business that are only able to work by their capacity are being running. There is no livestock zone which is managed by the departments of government. Fishery is mainly carrying out only in lochs.

Fishery

In Ahpyauk Township, freshwater fishery business is running in Darpwe loch, Moeyarshae loch, Bishar loch, Khannpyin loch, Zagar loch, Yaelaegyi loch. Auctions are held in March. The floor price of Darpweloch, Moeyarshae loch and Zagar loch is 8,000,000. And that of Bishar loch, Khannpyin loch, Yaelaegyi loch is 6,000,000. The bidders of these lochs must pay tax 600,000 for every 5% of profit if the revenue is passed over the auction price.

Livestock

Buffaloes, cows, pigs, chickens, and goats are being bred in livestock business, and eggs, meat and dairy produce are earned from it.

Table 4.6 Development of Livestock of Ahpyauk Township (2005-2006 to 2016-2017)

(Head)

No	Year	Cow	Goat	Pig	Chicken	Buffalo
1	2005-2006	12892	862	508	5082	98
2	2006-2007	11568	651	541	5200	90
3	2007-2008	10062	701	590	6892	87
4	2008-2009	9812	587	605	7001	71
5	2009-2010	8821	512	802	8018	65
6	2010-2011	7891	473	972	9872	60
7	2011-2012	7545	481	1192	11020	51
8	2012-2013	6890	492	1509	15019	50
9	2013-2014	6127	384	1905	18752	42
10	2014-2015	4570	301	2142	18924	38
11	2015-2016	3891	392	2304	19001	35
12	2016-2017	3323	357	2638	19477	30

Source: Department of Animal Husbandry, Taikkyi Township (2017)

In table 4.6, by comparing livestock sector of 2005-2006 and 2016-2017, it was observed that the quantity of cow decreased from 12892 to 3323. The quantity of goat also decreased from 862 to 357. The quantity of buffalo decreased from 98 to 30. The quantity of pig increased from 508 to 2638 and the quantity of chicken increased from 5082 to 19477. The reason of quantity decreasing of buffalo and cow is that they are only bred for farm sector and nowadays modern farming machines are widely used.

4.2 Development of Social Sector

Social sector consists of education, health and other social activities. In education, the quantity of school, the ratio of teacher and student, the situation of educational result of students are described. In health, health institutions, the ratio of people and employee of health sector, the quantity of hospital bedstead are described. Other social activities include jobs and labor power, cooperatives of loan. But only the conditions of education, health and communication are described.

As the situation of education, projects of the elimination of illiteracy have been accomplished successfully. Therefore, the quantity of illiterate is not as much as to describe with a number.

4.2.1 Development of Educational Sector

As the motto of the ministry of education, "Building a modern developed nation through education", Myanmar education vision, "To create an education system that will generate a learning society capable of facing the challenges of the Knowledge Age" is being implemented with 30 year project. The educational sector and the development of educational sector of Ahpyauk Township are shown in following table.

Table 4.7 The Situation of School in Ahpyauk Township

-	2015- 2016-	2016 2017	1 1	1 2	2 2	2 2	25 25	5 7	36 39	
-	2014- 20			1	2	2	25	4	34	
	2013-	2014	-		2	2	24	2	31	
	2012-	2013	_	8	2	2	24	8	29	
	2011-	2012	_				24		27	
	2010-	2011			_		24	1	27	
	2008- 2009-	2010		8			22		25	
		2009	_	,			22	•	25	
J	2007-	2008	-			_	22	,	25	
	2006-	2007	-		-	-	22		25	
of June 1	2005-	2006	_	ı	-	-	22		25	
Table 7.7		Rank of School	High School	Attached High School	Middle School	Attached Middle School	Primary School	Post primary school	Total	
Ian		^o Z	-:		2.		3.			

Source: The Office of Education Office (2017)

According to table 4.7, the studying the extension of schools, it is found that there is increase in 2016-2017, by comparing with 2005-2006. There is no monastery school in Ahpyauk Township. Being increase in quantity of high school, middle school and primary school is one of the proofs that shown the growth of education.

There is no college and university in Ahpyauk Township. There is a high school, 20 teachers and 780 students, the ratio of teacher and student is 1:39. There are 2 middle school, 21 teachers and 739 students, the ratio of teacher and student is 1:35. The quantity of primary school in Ahpyauk Township is 25 and there are 209 teachers and 3892 students, then the ratio of teacher and students for primary schools is 1:19. In studying schools, teachers and students of Ahpyauk Township, only public schools were studied. Extending the basic education schools assists to rise the educational condition of the region. Opening joint high schools, joint middle schools, and joint primary schools is convenient of people who have difficulties to study. Since the projects of the elimination of illiteracy have been accomplished successfully in Ahpyauk Township, the quantity of illiterate is not as much as to describe with a number. Extending joint primary schools and public primary schools is able to teach basic education to everybody.

1. Multimedia Learning Center

For the purpose of modern education, multimedia learning center which uses modern methods of study is situated only in Basic Education High School, Ahpyauk Township.

Table 4.8 The Quantity of Basic Education Schools in Ahpyauk Township

	Educational	onal High School		Mi	ddle Schoo	1	Primary School			
No.	Year	Teacher	Student	Ratio	Teacher	Student	Ratio	Teacher	Student	Ratio
1	2005-2006	20	791	1:40	21	778	1:37	201	3589	1:18
2	2006-2007	24	809	1:34	24	745	1:31	198	3446	1:17
3	2007-2008	27	817	1:30	24	711	1:32	198	3278	1:17
4	2008-2009	20	814	1:41	27	759	1:28	203	3702	1:18
5	2009-2010	20	741	1:37	21	701	1:33	209	3881	1:19
6	2010-2011	24	779	1:32	26	736	1:28	204	3356	1:16
7	2011-2012	23	786	1:34	27	744	1:28	200	3481	1:17
8	2012-2013	23	794	1:35	23	749	1:33	203	3754	1:18
9	2013-2014	24	678	1:42	23	712	1:37	203	3441	1:17
10	2014-2015	20	797	1:40	27	715	1:27	192	3850	1:20
11	2015-2016	23	809	1:35	25	746	1:35	209	3805	1:18
12	2016-2017	20	780	1:39	21	734	1:35	209	3892	1:19

Source: The Office of Education, Taikkyi Township (2017)

According to table 4.8, in 2005-2006 educational year, the quantity of high school teacher was 20 and that of student was 791, teacher/ student ratio is 1:40. In 2016-2017 educational year, the number of teacher was also 20 and that of student was 780, teacher/ student ratio is1:39 and there was no apparent change in quantity of high school teacher. In middle schools, the quantity of teacher of educational year 2005-2006 and 2016-2017 was 21 and there was a bit change in quantity of student. In primary schools, the ratio of teacher and student did not have any apparent change. The ratio of teacher and student means the number of student who has to be controlled by a teacher. It ratios is good condition for teaching students. So, the quality of students are increased.

To develop educational sector, being higher education and passing matriculation examination are important. The pass percentages of passed students of Ahpyauk Township between the educational year 2005-2006 and 2016-2017 are shown in following table.

Table 4.9 Pass Rate of Matriculation Examination

No	Educational Year	Enrollment	Passed students	Pass Rate (%)
1	2005-2006	399	244	61.15%
2	2006-2007	346	208	60.12%
3	2007-2008	401	279	69.58%
4	2008-2009	391	201	51.40%
5	2009-2010	355	166	46.76%
6	2010-2011	410	268	65.37%
7	2011-2012	389	244	62.72%
8	2012-2013	334	221	64.24%
9	2013-2014	372	194	52.15%
10	2014-2015	411	221	53.77%
11	2015-2016	433	206	47.58%
12	2016-2017	385	213	55.32%

Source: Basic Education High School Ahpyauk Township (2017)

According to the table 4.9, the pass percentage of the educational year 2005-2006 was 61.15% and that of the educational year 2016-2017 was 55.32%. The reason of decreasing pass percentage are lack of answering the examination of some students due to economic and social situation although they enrolled the class, and having difficulties to keep studying even they enrolled the school because of high education cost. Therefore, decreasing in pass percentage is not because of decreasing being able to study.

2 Libraries

There are many libraries in Ahpyauk Township, a library which is concerned with education, 4 ward libraries, 37 village libraries, and 1 library that is concerned with religion. Other small libraries are also opening.

4.2.2 Development of Health Sector

As the saying "Health is a prize", health is an important basic fact for human beings. Development of health sector is an important part of the development of social economic sector. Health data which are concerned with Ahpyauk Township are shown in following tables.

1 Public Hospitals

There is only a 25-beded public hospital in Ahpyauk Township. 2 general clinics, 2 dental clinics are situated in urban area for public health. Hospital, places which serve health care and clinics of Ahpyauk Township are shown in following Table.

Hospital, Places where Health Care Serve and Clinics of Ahpyauk Township Table 4.10

	2016-	2017	1	-	5	33
	2015-	2016	1	- ~	5	æ
	2014-	2015	1	-	5	2
	2013-	2014	1	-	5	2
	2012-	2013	1	-	5	2
•	2011-	2012	1	-	5	2
	2010-	2011	1	-	5	2
	2009-	2010	1	_	5	2
	2008-	2009	1	. 1		_
	2007-	2008	_	- %		1
	-9002	2007		-	5	1
	2005-	2006	-	-	5	1
•	Health	Institutions	25 bed Hospital	Maternal and Child Welfare Association	Rural Health Center	Private Clinic
		0 Z	-	7	3	4

Source: Health Department of Ahpyauk Township (2017)

According to table 4.10, there is no apparent change in hospital and health department that are planned by government. Private clinics increased. There are many needs for health sector in Ahpyauk Township. Hospitals with many beds, clinics of the departments of social security, Maternal and Child Welfare Association are needed to apply. Then productive power can rise since labor power can cure their health problems cheaply, decrease of deaths of children under one year, education will develop if children become healthier and stronger. The following table is presented to provide necessary staffs and buildings.

Table 4.11 The Indicators of Health

No	Types of Manpower	2005-2006 (Quantity)	2016-2017 (Quantity)	Population Ratio (2016-2017)
1	Doctor	1	1	1:38975
2	Nurse	1	6	
3	Mid Wife	6	6	
4	Health Staff	2	8	
5	Beds	25	25	1:1559
6	Birth Rate	541	437	
7	Maternal death while birthing	2	œ	
8	Death of children under 1 year	12	5	
9	Skillful staff and birth rate	145	80	

Source: Health Department of Ahpyauk Township (2017)

According to table 4.11, the number of doctors of Ahpyauk Township in 2005-2006 was 1 and that of 2016-2017 was also 1. There was no change in the number of doctor. The ratio of doctor and patient in 2016-2017 was 1:38975. Only the number of nurse increased in 2016-2017 beyond that of 2005-2006. The number of health worker increased during 12 years. Maternal death while birthing and death of children under 1 year also decreased. These conditions indicate the development of health sector.

According to the township administration reports, diseases that commonly occur in Ahpyauk Township are tuberculosis, pertussis, measles, and hepatitis. There

is no patient who died with HIV/AIDS. Death rate of children under 1 year and 5 year of Ahpyauk Town is higher than that of Yangon Region and northern distinct. 65 infants under 1 year aged in 1000 live-born children, 73 children under 5 year aged in 1000 children, are dead. In 2016-2017, 5 children under 1 year aged were dead in Ahpyauk Town. There was a few maternal death while birthing.

As the action of the department of health, in health formation of Ahpyauk Township, there are 1 public hospital, 5 rural health departments, 1 town health department, 1 Maternal and Child Welfare Association.

Public hospital, health departments, Maternal and Child Welfare Association are opened in Ahpyauk Township. The economy of a country will develop only if the citizens are health and being good at physical, moral can increase the productive power. The national health department is cooperating with the public. As the prologue health care project, public health care, family health care and nutrient plan are carried out by the health department of the township. The department of external patients is opened for public health of the town. The department of rural health care opens on Monday, Tuesday, and Wednesday, and field service is carried out on other days. People were trained public health classes, Red Cross class to cure general fevers and injuries.

In case of maternal and nutrition activities, additional mid wife training has been opened. The period of training is 6 months. Family health and nutrition are the most important for the care of pregnant women and children. Those mid wives, secondary mid wives are doing door to door services to pregnant women, such as regular checking and birthing. The quantity of birth is decreasing since birth control project is activating the whole country. Although the birth control project is not working quite effectively in Ahpyauk Township, health staffs provide knowledge about birth control injections, pills. Therefore, although Myanmar cannot extend the quantity of doctors, health activities could be done by giving training and update training.

The case of prevention and eradication against epidemic is mainly carried out as a project in Ahpyauk Township. Diseases that are commonly found in that region are tuberculosis, pertussis, measles, hepatitis, temporary air way blotting, diarrhea, dysentery, and malaria.

Temporary air way blotting disease mostly occurs in children under 5 years. It can cause from grippe to death. Diarrhea is a disease which occurs because of unclean

water. Mostly, it causes because of unclean water from rivers, creeks and ditches. The number of people who suffer diarrhea decreased obviously since toilet project was carried out by the whole town.

The activity of eradication against malaria is carried out by the epidemic eradication team as a private project. Malaria is found in Ahpyauk Town although it is not in the malaria zone. Dengue fever had been suffered but it was less in death.

As prevention, inoculation for 6 diseases is being provided to children under 1 year in Ahpyauk Township. These 6 regular diseases are-

- (1) Lung disease
- (2) Diphtheria
- (3) Whooping-cough
- (4) Tetanus disease
- (5) Measles
- (6) Polio disease

According to environment health project, fly protective toilets were built in 10 villages with the quantity 0ver 1900 toilets. Cleaning event in summer, clearing ditches and bushes to remove mosquitos in rainy season are carried out by health staffs.

In reality, since people of rural parts are weak in knowledge, giving knowledge to them including pregnant women from time to time is needed. The hospital received 35000 kyats per month provided from World Bank and also received the government budget as a share at Taikkyi hospital. Ahpyauk Town is in low efficiency of health care since the hospital is just a circuit hospital and the ratio of doctor and patient is too high. In developing countries, it is difficult to provide enough quantity of doctor for increasing population. Therefore, giving update training to doctors to promote the quality of doctors, and cooperation with health staffs are needed.

4.3 Development of Service Sector

The service businesses of Ahpyauk Township are private schools, transportation, merchandising, selling groceries and household goods, construction, and smoking (tobacco) industry.

4.3.1 Financial Institution

For the purpose of development of agriculture, farmers are hired loans by Myanmar Agricultural Development Bank. Microfinance loans are served by Green Emerald Village Project and cooperative loan farm. The systems of loan and rates of agricultural loan of Ahpyauk Town from Myanmar Agricultural Development Bank are shown in following table.

Table 4.12 Rates of agricultural loan and loans of Ahpyauk Township (2005-2006 to 2016-2017)

Year	Population	Acre	Rate of Loan Per	Total Amount of
	u		Acre (Kyats)	Agricultural Loan
7				(Kyats)
2005-2006	1576	14890	30,000	446,700,000
2006-2007	1576	14890	30,000	446,700,000
2007-2008	1576	17068	50,000	853,400,000
2008-2009	1576	17068	50,000	853,400,000
2009-2010	1580	20150	70,000	1,410,500,000
2010-2011	1590	20150	70,000	1,410,500,000
2011-2012	1600	21450	70,000	1,501,500,000
2012-2013	1670	15400	100,000	1,540,000,000
2013-2014	1780	17200	100,000	1,720,000,000
2014-2015	1850	18600	100,000	1,860,000,000
2015-2016	1975	13219	150,000	1,982,775,500
2016-2017	1975	13219	150,000	1,982,775,500
	2005-2006 2006-2007 2007-2008 2008-2009 2009-2010 2010-2011 2011-2012 2012-2013 2013-2014 2014-2015 2015-2016	2005-2006 1576 2006-2007 1576 2007-2008 1576 2008-2009 1576 2009-2010 1580 2010-2011 1590 2011-2012 1600 2012-2013 1670 2013-2014 1780 2014-2015 1850 2015-2016 1975	2005-2006 1576 14890 2006-2007 1576 14890 2007-2008 1576 17068 2008-2009 1576 17068 2009-2010 1580 20150 2010-2011 1590 20150 2011-2012 1600 21450 2012-2013 1670 15400 2013-2014 1780 17200 2014-2015 1850 18600 2015-2016 1975 13219	Acre (Kyats) 2005-2006

Source: Myanmar Agricultural Development Bank, Taikkyi Township (2017)

4.3.2 Transportation Sector

The development of infrastructures is a part of social economic development. The development of transportation and communication is the most important to develop within the region. Transportation is an important fact for the region. Bicycles, motorcycles, tricycles, and cars are mainly used in transportation sector of Ahpyauk Township. In overland transportation, there are high-way transportation services such as "La Pyae Won" and "MoePalae" that are running Ahpyauk-Taikkyi-Yangon. As maritime transportation, boats, speedboats and motorboats are in use and

there are motorboat services such as "Nilar Aung" which is running Ahpyauk – Danuphyu and "Aung Soe Moe", running Ahpyauk- Zalon.

1 Modern Roads and Bridges Construction Sector

There are State Department of Construction and private constructions in Ahpyauk Township. Projects which are concerned with modern roads and bridges constructions are managed and handled by the department of roads and bridges constructions of Ahpyauk Township.

2 Rural-Transportation

Roads and Bridges

Tarmacadam roads and concrete roads were built from Ahpyauk Township to near towns and villages. The length of the road from Ahpyauk Township to Taikkyi Township is 20.5 miles. There are many bridges in Ahpyauk Township. Among them, "Innlan" bridge has 210 feet and is the longest.

3 Village Roads

People who live in villages travel by bicycle, motorcycle, and on foot. Travelling on foot is the most suitable in the rainy season. Motorcycles are widely used in dry seasons.

4.3.3 Energy and Electrical Power Sector

There are two private fuel stations in Ahpyauk Township. 5876 barrels of petrol, 8059 barrels of diesel are sold in each year from those stations. In the use of electricity, there are 11 transformers which were provided by the government and 6 private transformers. The electricity is taken from 33/11 KV 5MVA Tawlaty substation. It is taken from 17 miles with 11K Ahpyauk electronic cable. It is taken from the entry of Ahpyauk Township. The electricity is not available yet in 14 villages. The percentage of electricity availability is 42.7%. The type of voltage is 11KV 0.4KV. The quantity of electricity user is 3536. The average power consumption unit of Ahpyauk Township is 430061 kilowatt per month. General household power consumption unit is 358105 kilowatt per hour, small industries consumption unit is 4529 kilowatt per hour, huge consumption unit (hotel, motel,

supermarkets, commercial buildings) is 5443 kilowatt per hour and road light consumption unit is 7984 kilowatt per hour.

4.3.4 Telecommunication Sector

The development of telecommunication is directly related with food, living and social sectors of people. The data concerned with the telecommunication sector of Ahpyauk Township are described in following table.

Table 4.13 Telecommunication Facilities in Ahpyauk Township (2005-2006 to 2016-2017)

				Auto Line	GSM/CDMA
No	Year	Post Office	Telegraph	telephone	Phone
1	2005-2006	1	1	37	10
2	2006-2007	1	1	37	16
3	2007-2008	1	1	37	16
4	2008-2009	1	1	37	23
5	2009-2010	1	1	14	48
6	2010-2011	1	1	14	60
7	2011-2012	1	1	8	350
8	2012-2013	1	1	8	1050
9	2013-2014	1 .	1	3	4516
10	2014-2015	1	1	-	6678
11	2015-2016	1	1	-	7041
12	2016-2017	1	1	-	9218

Source: Department of General Administration, Ahpyauk Township (2017)

According to table 4.13, there was no change in post and telegraph services but the use of landline phones decreased between 2005-2006 and 2016-2017. The use of GSM/CDMA phones was only 10 in 2005-2006, and it increased to 9218 in 2016-2017. Communication with phones is a fact to point the economic development of Ahpyauk Township. Cell phones are widely used even in rural parts. It can say that

the use of cell phones could be extended due to the economic development. As the market economy, extending the use of cell phone can make goods ordering, selling and delivering to be faster and save time and it assists the economic development a great deal.

teachers for Middle School and, 201 teachers for Primary education in 2005-2006 but there are 20 teachers for High School teachers, 21 teachers for Middle School and, 209 teachers for Primary education in 2016-2017. But the number of schools and buildings are increased from 25 in 2005-2006 to 39 in 2016-2017.

For health sector, there is no significant increase of new building for health care services. The health care index, the ratio of patients per doctor is one doctor have to take care and serve for 37,987 in 2005-2006 increases to one doctor serve per 38,975 patients in 2016-2017. This means that the posting of new doctors does not meet growth of population. Ahypauk Township may decline the infection of diseases because there are seven main projects of national planning. For protection for infection of diseases, every children who aged less than one year are immunizing for six normal diseases. Infant mortality rate, disability and unable to memorizing are prevented by immunizing for lung disease, diphtheria disease, whooping cough, locked jaws, measles and polio. Children become healthier, higher education and fitness will fill up efforts to develop and modernize as soon as possible will be successful.

The strength for long project implementation is found as vast lands for agricultural, wide agricultural areas to support rice production. The weakness for long project implementation is found as lack of dams for irrigation, extra cost for buying materials, extra cost for local farmers carrying their product, lack of qualified workers . Insufficient investment need of using machinery, technical challenge, no electricity in some village.

5.2 Suggestions

The finding of the socio-economic study of Ahpyauk Township is summarized in chapter 5-1. Transformation of traditional agriculture to industrialized agriculture is the most important factor to socio-economic development of Ahpyauk Township and this is only way to develop the agriculture sector in long-term. Providing of techniques for cultivation, fertilizers, machines and oils would help to success the agriculture sector and economic development of the region.

The summer paddy is grown in 2015-2016 by the project in Ahpyauk Township. Water is the most important input for summer paddy. Provide the required amount of water in required time, usages of the fertilizers, cultivated in time, harvest

in time to avoid the rain and spinning are needed. The productivity will decline if one of above facts is missed. That is growing for summer paddy cost more than monsoon paddy. Summer paddy should be grown in the place where it can get or get out water easily. Making incentive to farmers who cultivate the summer paddy by project in suitable place, cultivated in time for making installment for tractors, plumbers, oils and fertilizers should be provided by government. Subsidies from government may make the success of summer paddy cultivation and more productivity.

For education sector, posting more teachers could reduce the teacher and students ratio and the education will be effectively. Expending of primary schools, middle schools and high schools as well as opening new primary schools, middle schools and high schools are also needed. This could make to reduce the cost for education, solve the living problems and have a chance to learn the primary, middle and higher education for rural students.

For health sector, there is needed to expend the 25-bedded hospital to 60-bedded to meet the population growth. It is needed to post more health-care staffs for rural regions. More doctors and health care workers should be provided for the growing population. Ahpyauk Township would be improvements in doctor-population ratios and in the population per hospital bed ratio. There is different between rural and urban people in socio-economic development conditions. Hence, agriculture sector, education sector and health sector need to develop for the socio-economic development of rural region. To get the sustainable improvement in socio-economic development of Ahpyauk Township, the supporting of government sector and non-government organizations is necessary.

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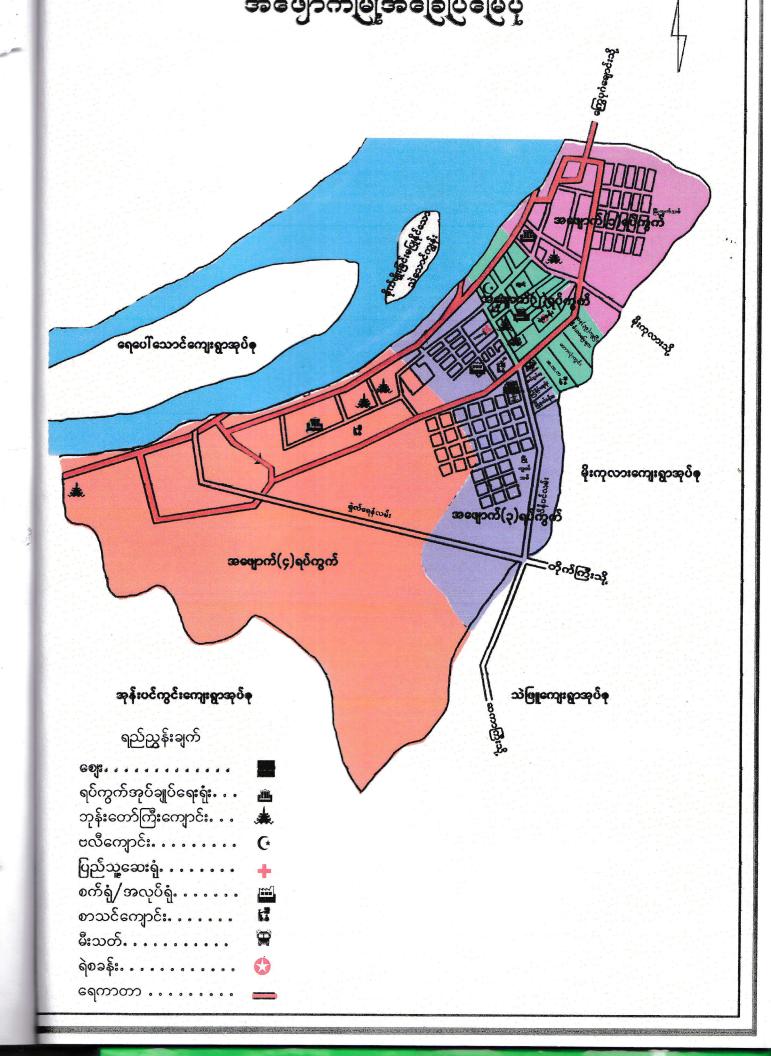
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