

Chapter 2

Major Findings

General Information

The Northeastern Region has an area of 168,855.4 square kilometers, It has common boundary with Laos People's Democracy Republic in the North and in the East, Phitsanulok, Phetchabun, Lop Buri, Saraburi and Nakhon Nayok in the West. Kingdom of Cambodia, Prachin Buri and Sa Kaeo in the South. The climate is relatively warm in the summer and cold in the winter.

In the year 2010, the Northeastern Region had 19 provinces (Changwat), 322 districts (Amphoe), 2,678 sub-districts (Tambon), 27,060 villages (Moo baan), 712 municipalities and 2,235 non-municipalities (Tambon Administration Organization : TAO).

1. Demographic characteristics

1.1 Number of population and distribution of population

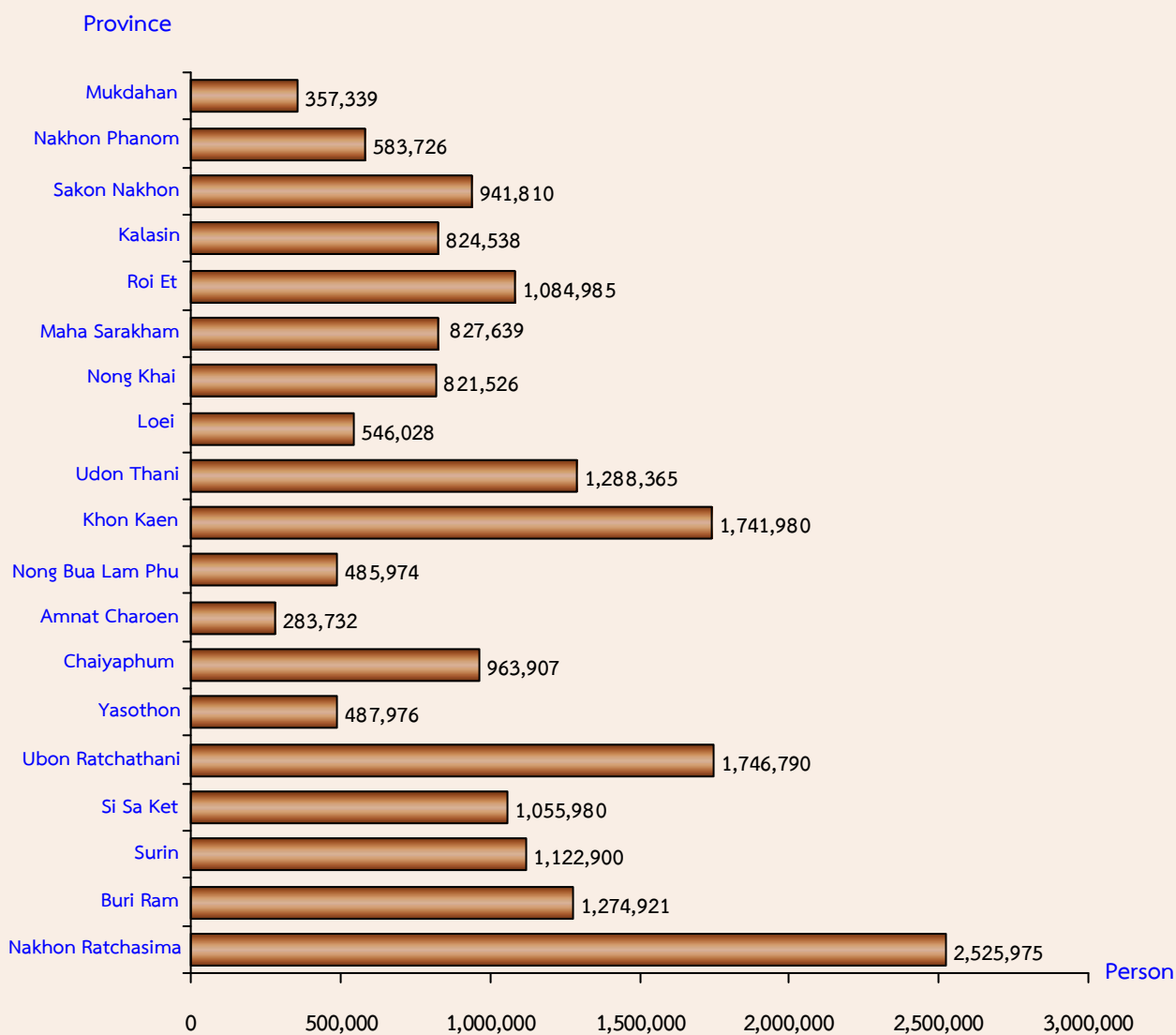
On September 1, 2010, number of population in the Northeastern Region was 18,966,090 out of these, 9,284,137 were males and 9,681,953 were females. The sex ratio which is defined as the number of males over 100 females, was 95.9. This indicated that the number of females was slightly more than males. This appeared in most of the provinces of the Northeast. The annual population growth rate between 2000 to 2010 was -0.94 percent per year.

Most of the population in this region or about 70.8 percent lived in non-municipal area while only about 29.2 percent lived in municipal area (Table 1). In comparison of population at provincial level, it reveals that Nakhon Ratchasima was the most populous, of 2,525,975 people or 13.31 percent, followed by Ubon Ratchathani (9.21 percent) and Khon Kaen (9.18 percent) respectively. Amnat Charoen was the least populous, of 283,732 people or 1.49 percent (Figure 1).

Table 1 Number of population by sex and area

Area	Population			Percent
	Total	Male	Female	
Total	18,966,090	9,284,137	9,681,953	100.0
Municipal area	5,539,352	2,683,691	2,855,661	29.2
Non-municipal area	13,426,738	6,600,446	6,826,292	70.8

Figure 1 Number of population by province in 2010



1.2 Population density

The population density of Northeastern Region was 112.3 persons per 1 square kilometer (km^2). The province, with highest density was Khon Kaen, with 160 persons per 1 km^2 , followed by Maha Sarakham and Surin with of 156.4 and 138.2 persons per 1 km^2 , respectively. Loei was the lowest density of 47.8 persons per 1 km^2 .

Table 2 Average population density by province

Province	Area (Square kilometer)	Number of population (Person)	Population density (Person per 1 Km ²)
Total	168,855.4	18,966,090	112.3
Nakhon Ratchasima	20,493.8	2,525,975	123.3
Buri Ram	10,322.9	1,274,921	123.5
Surin	8,124.0	1,122,900	138.2
Si Sa Ket	8,840.0	1,055,980	119.5
Ubon Ratchathani	15,744.9	1,746,790	110.9
Yasothon	4,161.7	487,976	117.3
Chaiyaphum	12,778.3	963,907	75.4
Amnat Charoen	3,161.2	283,732	89.8
Nong Bua Lam Phu	3,859.0	485,974	125.9
Khon Kaen	10,886.0	1,741,980	160.0
Udon Thani	11,730.3	1,288,365	109.8
Loei	11,424.6	546,028	47.8
Nong Khai	7,332.3	821,526	112.0
Maha Sarakham	5,291.7	827,639	156.4
Roi Et	8,299.4	1,084,985	130.7
Kalasin	6,947.0	824,538	118.7
Sakon Nakhon	9,605.8	941,810	98.0
Nakhon Phanom	5,512.7	583,726	105.9
Mukdahan	4,339.8	357,339	82.3

1.3 Number of households, household size and sex of household head

There were 5,372,692 households in this region, about 5,339,779 private households, 32,913 collective households (Such as institutional household, worker's household). The average size of private households was 3.5 persons per household. The average size of private households in municipal area was smaller than in non-municipal area ; 3.3 and 3.6 persons, respectively (Table 3).

Considering provincial differences, Nong Khai had the biggest average size of private households, of about 4.2 persons, followed by Mukdahan 4.1 persons. Khon Kaen had the smallest average size of private households ; 3.2 persons per household (Statistical table 1).

In private households, there was higher percentage of male headed households than female headed households (65.7 and 34.3 percent, respectively). In municipal area, there was higher proportion of female headed household than in non-municipal area (Table 3).

Table 3 Number of household and average size of household, percentage of household head by sex and area

Area	Number of private household	Average size of household	Percentage of household head		
			Total	Male	Female
Total	5,339,779	3.5	100.0	65.7	34.3
Municipal area	1,651,944	3.3	100.0	64.0	36.0
Non-municipal area	3,687,835	3.6	100.0	66.5	33.5

1.4 Population age-sex structure

Considering of population age-sex structure in the Northeastern Region by age group (Table 4), it was found that young population (0 - 14 years) accounted for 23.2 percent, working age population (15 – 59 years) for 62.6 percent and aging population (60 years and over) was 14.3 percent. The proportion of the young group and that of the elderly group in non-municipal area were higher than those in municipal area, while the working-age group in the non-municipal area was lower than that was in the municipal area. When consideration about sex, it showed that proportion of young population group was more male than female, while working-age group and elderly group were more female than male.

Average age of population (Median Age) was about 35.6 years. The population in municipal area had a little higher median age than those in non-municipal area (35.9 and 35.1 years, respectively).

The dependency ratio, which defines as population working aged 15-59 years who have to be responsible for population at the other aged-groups, was 59.8, it means that 100 persons of working age population have to be responsible to take care of young and elderly population, approximately 59 persons. Age dependency ratio for young population is 37.0 and is 22.8 for elderly population. The young and elderly dependency ratios in non-municipal area were higher than those in municipal area (Table 4).

Table 4 Population characteristics by area

Population characteristics	Total	Area	
		Municipal area	Non-municipal area
Population by aged-group (%)			
Children aged 0-14 years			
Total	23.2	20.7	24.1
Male	24.3	21.9	25.3
Female	22.1	19.7	23.1
Working aged 15-59 years			
Total	62.6	65.8	61.3
Male	62.5	65.6	61.2
Female	62.7	65.9	61.3
Old aged 60 years and over			
Total	14.3	13.5	14.6
Male	13.2	12.5	13.5
Female	15.3	14.4	15.6
Median age (year)	35.6	35.1	35.9
Sex ratio (%)			
Total	95.9	94.0	96.7
Children aged 0-14 years	105.5	104.6	105.8
Working aged 15-59 years	95.6	93.4	96.5
Old aged 60 years and over	83.3	81.9	83.8
Dependency ratio (%)			
Total	59.8	52.1	63.2
Children aged 0-14 years	37.0	31.5	39.4
Old aged 60 years and over	22.8	20.5	23.8

1.5 Religion and nationality

Most of the population in the Northeastern Region were Buddhist (99.3 percent), followed by Christian (0.5 percent) and Islamic (0.1 percent).

The Majority of population, of about 99.1 percent were Thais, 0.4 percent was Laotian and the rest were other nationalities such as Burmese, Cambodian and Vietnamese etc. (Table 5).

Table 5 Percentage of population by religion, nationality and area

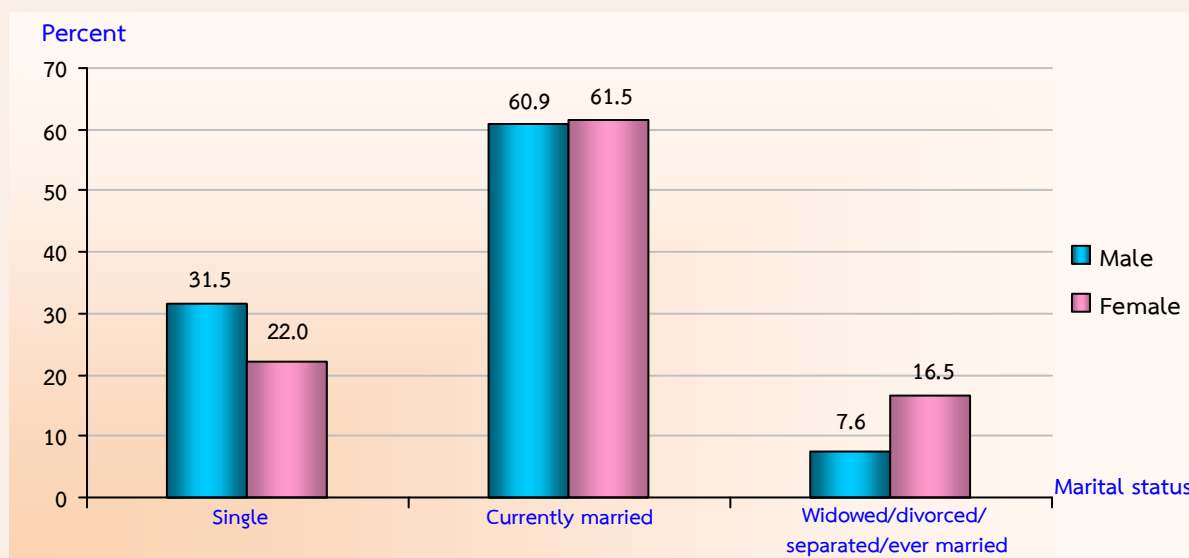
Religion and nationality	Total	Area	
		Municipal area	Non-municipal area
Religion^{1/}	100.0	100.0	100.0
Buddhism	99.3	99.0	99.4
Christianity	0.5	0.7	0.4
Islam	0.1	0.2	0.1
Others	0.1	0.1	0.1
Nationality^{1/}	100.0	100.0	100.0
Thai	99.1	98.6	99.3
Laotian	0.4	0.5	0.3
Burmese	0.2	0.3	0.1
Cambodian	0.1	0.1	0.1
Others	0.2	0.5	0.2

1/ Excluding unknown

1.6 Marital status

Figure 2 shows marital status of population aged 13 years and over, it was found that more than 60 percent of population was currently married. The proportion of male and female with currently married status were about the same. The single male was higher than female (31.5 and 22.0 percent, respectively), but ratio of female population who were widowed, divorced, separated and ever married were more than double compared to those of male (16.5 and 7.6 percent, respectively).

Figure 2 Percentage of population aged 13 years and over by marital status^{1/} and sex



1/ Excluding unknown

1.7 House registration

Regarding, having the names were listed in the house registration according to actual place of residence, it was found that there were 90.8 percent of population residing in such province had their names registered in the house registration system, 6.4 percent of them had their names registered in the same provinces of residence, while 2.2 percent had been in other provinces, the rest of 0.6 percent had their names in the house registration in other countries, most of them were foreigners or non-Thai living in Thailand. Population, in municipal area had been in the registration system at the actual place of residence was lower than those in non-municipal area ; 84.7 and 93.3 percent, respectively (Table 6).

Table 6 Percentage of population by house registration, sex and area

Name listing in house registration ^{1/}	Total	Sex		Area	
		Male	Female	Municipal area	Non-municipal area
Total	100.0	100.0	100.0	100.0	100.0
Listed in the house actual living	90.8	89.9	91.6	84.7	93.3
Listed in other house					
In this province	6.4	7.1	5.8	10.2	4.8
In other province	2.2	2.4	2.0	4.2	1.4
In other country	0.6	0.6	0.6	0.9	0.4
No where	a	a	a	a	0.1

1/ Excluding unknown

a Less than 0.1 percent

1.8 Disability

Regarding the questions on disability which refers to visible disability or can be obviously seen based the definition of Ministry of Social Development and Human Security, asked every person whether they have disability or not. It was found that for 18,966,090 persons in the Northeastern Region, 98.9 percent of them, were not disable, only 1.1 percent were disable (Table 7).

Table 7 Percentage of population by disability condition, sex and area

Disability Condition ^{1/}	Total	Sex		Area	
		Male	Female	Municipal area	Non-municipal area
Total	100.0	100.0	100.0	100.0	100.0
No disability	98.9	98.7	99.0	99.0	98.8
With disability	1.1	1.3	1.0	1.0	1.2

1/ Excluding unknown

2. Social and economic characteristics

2.1 Education

Normally population aged 6-24 years should be enrolled in school at any educational levels. However, table 8 indicates that approximately 22.1 percent of population aged 6-24 years were not attending school. Males, not attending school, was higher proportion than females (23.6 and 20.5 percent, respectively). Population, not attending school, in municipal area was lower proportion than of those in non-municipal area (21.6 and 22.3 percent, respectively).

About 36.5 percent of population, aged 15 years and over, who completed some levels of schooling, which was higher than elementary levels. Comparing between sex, male finished higher than elementary school with higher proportion than female (39.0 and 34.2 percent, respectively). Population in municipal area finished higher than elementary school more than those in non-municipal area (47.5 and 31.8 percent, respectively). For an average years of schooling, the results of the 2010 census showed that the population aged 15 years and over had an average 7.2 years of schooling, which was similar to both male and female (7.4 and 7.0 years, respectively).

Table 8 Population of education by sex and area

Education	Total	Sex		Area	
		Male	Female	Municipal area	Non-municipal area
Population aged 6-24 years, not attending school (%)	22.1	23.6	20.5	21.6	22.3
Population aged 15 yrs. and over, with higher than elementary school (%)	36.5	39.0	34.2	47.5	31.8
Average year of schooling, population aged 15 yrs. and over (year)	7.2	7.4	7.0	8.3	6.7

2.2 Literacy

Regarding the ability to read and write both Thai and other languages, it was found that more than 90 percent of population aged 15 years and over, in the Northeastern Region can read and write Thai. Moreover, the Thai literacy rate was not significantly different in terms of area and sex (Table 9).

For Literacy rate of other language, such as English, Lao, Myanmar and Cambodia, it showed that population in the municipal area higher literacy rate in other languages than those in non-municipal area about 2.5 times (14.2 and 5.6 percent, respectively).

Table 9 Percentage of population aged 15 years and over by literacy, sex and area

Literacy ^{1/}	Total	Sex		Area	
		Male	Female	Municipal area	Non-municipal area
Thai language	100.0	100.0	100.0	100.0	100.0
Literate	99.0	99.2	98.8	99.0	99.0
Illiterate	1.0	0.8	1.2	1.0	1.0
Other languages	100.0	100.0	100.0	100.0	100.0
Literate	8.2	8.2	8.3	14.2	5.6
Illiterate	91.8	91.8	91.7	85.8	94.4

1/ Excluding unknown

2.3 Last year employment

2.3.1 Industry

Out of the total number of 14,534,982 population aged 15 years and over, there were 11,171,457 persons (76.9 percent of population aged 15 years and over) employed as of 1 September 2009 to 31 August 2010), of these, 5,588,100 persons were males (50.03 percent) and 5,583,357 persons were females (49.97 percent). There was about 23.1 percent of population of this aged-group were not employed or not working. Considering types of industry or business of the employed population, it was found that there was 71.3 percent of people working inside agricultural sector, and 28.7 percent working outside agricultural sector, 7.3 percent work in wholesale and retail business, vehicle and motorcycle repair, followed by manufacturing and public administration and defence (4.3 and 3.3 percent, respectively).

For those employed in municipal area, more than half work in agricultural sector (51.5 percent) and work outside agricultural sector, (48.5 percent), mostly in wholesale, and retail business, vehicle and motorcycle repair (13.7 percent). Employed population in non-municipal area, mostly (79.0 percent) worked in agricultural sector (Table 10).

Table 10 Number and percentage of population aged 15 years and over by employment, industry, sex and area

Employment and industry	Total	Sex		Area	
		Male	Female	Municipal area	Non-municipal area
Total ^{1/}	14,534,982	7,010,939	7,524,043	4,371,709	10,163,273
Number of employed persons	11,171,457	5,588,100	5,583,357	3,142,045	8,029,412
Percentage of employed persons	76.9	79.7	74.2	71.9	79.0
Industry	100.0	100.0	100.0	100.0	100.0
Agricultural sector (%)	71.3	70.3	72.4	51.5	79.0
1. Agriculture, forestry and fishing	71.3	70.3	72.4	51.5	79.0
Outside agricultural sector (%)	28.7	29.7	27.6	48.5	21.0
1. wholesale and retail business, vehicle and motorcycle repair	7.3	6.9	7.7	13.7	4.8
2. Manufacturing	4.3	3.9	4.6	5.9	3.6
3. Public administration and defence; compulsory social security	3.3	4.7	1.9	5.8	2.3
4. Education	2.9	2.5	3.4	5.1	2.1
5. Accommodation and food service activities	2.5	1.8	3.3	5.1	1.5
6. Others ^{2/}	8.4	9.9	6.7	12.9	6.7
Number of unemployed persons	3,363,525	1,422,839	1,940,686	1,229,664	2,133,861
Percentage of unemployed persons	23.1	20.3	25.8	28.1	21.0

1/ Excluding person not know whether they worked or not

2/ Other industries (see detail in statistical table 16)

2.3.2 Work status

Employed persons as of the census date, mainly worked as an own account worker without employee or about 40.8 percent, followed by unpaid family workers (38.4 percent) and employee (employee of government, state enterprise and private organizations), or about 19.8 percent, Comparing between sex, higher proportion of female worked as unpaid family workers than male (50.9 and 25.9 percent, respectively), while there was higher proportion of male than female in own account worker (50.7 and 30.9 percent, respectively).

The work status pattern of employed persons in municipal area, and non-municipal area is different. Most employed persons in non-municipal area worked as own account worker and unpaid family workers higher than in municipal area. In contrast, the proportion of population being employer in municipal area was higher than non-municipal area, (1.4 and 0.6 percent, respectively) and the proportion of employees in municipal area was higher than in non-municipal area ; 30.3 and 15.7 percent, respectively (Table 11).

Table 11 Percentage of employed persons by work status, sex and area

Work status ^{1/}	Total	Sex		Area	
		Male	Female	Municipal area	Non-municipal area
Total	100.0	100.0	100.0	100.0	100.0
Employer	0.8	1.1	0.6	1.4	0.6
Own account worker	40.8	50.7	30.9	37.0	42.3
Unpaid family worker	38.4	25.9	50.9	31.1	41.3
Government employee	7.1	7.8	6.4	12.6	4.9
Government enterprise	0.3	0.4	0.2	0.6	0.2
Private employee	12.4	13.9	10.9	17.1	10.6
Member of producer's cooperatives	0.2	0.2	0.1	0.2	0.1

1/ Excluding unknown

3. Fertility

3.1 Children ever born and children still living

The average of own children ever born of female aged 13 years and over was 1.83. Female in municipal area had average number of children ever born lower than those in non-municipal, which was 1.63 and 1.92 children, respectively. Considering only ever married female, with reproductive aged 15-49 years old, it was found that the average of children ever born was 1.72 children, which was lower than last 10 years (2.06 children) and it was in accordance with single mean age at first marriage, which was higher for both male and female.

Considering single mean age at first marriage (SMAM), it was found that female got married earlier than male, of which the single mean age at first marriage was 23.7 years old, while single mean age at first marriage of male was 28.3 years old. Both male and female in municipal area got married later than those in non-municipal area (Table 12).

Table 12 Fertility and single mean age at first marriage by area

Fertility	Total	Area	
		Municipal area	Non-municipal area
Average number of children ever born^{1/} (person)			
Per women aged 13 years and over	1.83	1.63	1.92
Per women aged 15-49 years	1.26	1.09	1.34
Per ever married women aged 15-49 years	1.72	1.63	1.75
Average number of children still living^{1/} (person)			
Per women aged 13 years and over	1.77	1.57	1.85
Per women aged 15-49 years	1.25	1.08	1.33
Per ever married women aged 15-49 years	1.70	1.62	1.74
Single mean age at first marriage (year)			
Total	25.9	27.1	25.3
Male	28.3	29.1	27.9
Female	23.7	25.2	22.8

1/ Not including females with no answer regarding children ever born.

4. Migration

4.1 Place of birth and period of living at the current place

From the 2010 Population and Housing Census, it was found that there are 89.7 percent of population who were born in the Northeastern Region and currently live in their hometown, mostly were female (90.2 and 89.2 percent, respectively). There was 10.3 percent of population born in other province or population not living in their hometown, mostly lived in municipal area (14.1 and 8.7 percent, respectively).

Population in the Northeast migrated during the year 2005-2010, accounted for 998,382 persons or 5.3 percent of total population in the region (excluding people with no answer of the period of staying at the current place). Proportion of migration in municipal area was higher than of which in non-municipal area (9.2 and 3.6 percent, respectively). Migration proportion of male was higher than female (5.6 and 4.9 percent, respectively).

Table 13 Percentage of migration by reasons for moving, sex and area

Migration and reasons for moving	Total	Sex		Area	
		Male	Female	Municipal area	Non-municipal area
Migrated population^{1/} (%)	100.0	100.0	100.0	100.0	100.0
Living in province of birth	89.7	89.2	90.2	85.9	91.3
Not living in province of birth	10.3	10.8	9.8	14.1	8.7
People who migrating during 5 yrs. (2005-2010)					
Number of migration	998,382	519,937	478,445	511,823	486,558
Percentage of migration	5.3	5.6	4.9	9.2	3.6
Reasons for moving^{2/} (%)	100.0	100.0	100.0	100.0	100.0
Looking for a job	11.4	11.4	11.5	11.6	11.2
Job assignment	10.6	11.4	9.8	13.2	7.9
Studying	19.3	15.2	23.8	26.9	11.2
Following persons in the household	25.0	22.6	27.5	18.5	32.0
Returning back home	3.3	3.0	3.6	2.0	4.7
Changing of residence	19.4	19.0	19.7	16.5	22.4
Moving into institution household	10.2	16.2	3.7	10.2	10.2
Others	0.8	1.2	0.4	1.1	0.4

1/ Excluding people with no answer about the period of time of a current stay

2/ Excluding unknown reasons for moving

4.2 Reasons for migration

During the year 2005-2010, the most reasons of population migration were following people in the household (25 percent), followed by changing of residence (19.4 percent), studying (19.3 percent) and looking for a job (11.4 percent). Male's reason in migration was job assignment more than female, while female's reasons in migration were to follow the people in the household and for education more than male. Proportion of population migration in municipal area for education was higher than of which in non-municipal area (26.9 and 11.2 percent, respectively). Proportion of population migration in non-municipal area was to follow people in the household, higher than those in municipal area; 32.0 and 18.5 percent, respectively (Table 13).

Housing Characteristics

1. Type and characteristic of living quarters

Studying types of residence of private households in the Northeastern Region in 2010, it was found that 92.8 percent of households were detached houses, followed by 3.6 percent of shop houses or row houses and 2.3 percent of flat, apartment and hostel. In considering type of living quarters, according to area, it is similar, that is most of them were detached houses. However, residences which were shop house, row house, flat, apartment and hostel mainly located in municipal area.

For characteristic of residence in terms of material used, it was found that mostly, permanent materials, which are brick, wood, and brick and wood (99.3 percent) were used in constructing residences. Households in municipal area had the residence made of permanent materials with a little higher proportion than the ones in non-municipal area; 99.5 and 99.3 percent, respectively (Table 14).

Table 14 Number and percentage of private households by type and construction materials of dwelling unit and area

Type of living quarters and construction materials of dwelling unit	Total		Area	
	Number	Percent	Municipal area	Non-municipal area
Type of living quarters	5,339,779	100.0	100.0	100.0
Detached house	4,957,046	92.8	82.3	97.6
Town house, duplex, townhome	52,562	1.0	2.0	0.5
Condominium, mansion	8,307	0.2	0.4	0.1
Flat, apartment, hostel	122,886	2.3	5.9	0.7
Row house, shop house	190,524	3.6	9.1	1.1
Others ^{1/}	8,451	0.1	0.3	0.1
Construction materials of dwelling unit^{2/}	5,330,504	100.0	100.0	100.0
Cement or brick	1,862,808	34.9	45.7	30.2
Wood	1,319,065	24.7	17.6	27.9
Brick and wood	2,115,306	39.7	36.2	41.2
Non-permanent materials, reused materials	19,871	0.4	0.3	0.4
Others	13,455	0.3	0.2	0.3

1/ Including rooms, inside a house, office, boat, raft and car used as living quarter

2/ Excluding unknown

2. Ownership of living quarters and land

In considering ownership of residence, households in the Northeastern Region, about 92.7 percent got their own residence (including ownership of residence with hire purchase), with higher proportion than the ones in municipal area (97.0 and 83.2 percent, respectively). About 4.9 percent of households rent the houses. Proportion of residence rented by households in municipal area was higher than the ones non-municipal area (12.3 and 1.6 percent, respectively).

Considering land tenure for residential purposes (only for households that own or hire purchase residence), it was found that more than 90 percent of private households in the Northeastern Region own the lands of their current residences. Proportion of the land belonged to the households in non-municipal area was higher than the ones in municipal area (Table 15).

Table 15 Number and percentage of private households by ownership of living quarters, land and area

ownership of living quarters and land	Total		Area	
	Number	Percent	Municipal area	Non-municipal area
Ownership of living quarters ^{1/}	5,334,540	100.0	100.0	100.0
Owner	4,924,465	92.3	82.5	96.7
Hire purchaser	19,985	0.4	0.7	0.3
Rent	263,441	4.9	12.3	1.6
Rent free	116,044	2.2	4.1	1.3
Others	10,606	0.2	0.4	0.1
Land ownership ^{1/}	4,934,461	100.0	100.0	100.0
Owner	4,779,504	96.9	95.4	97.4
Hire purchaser	71,137	1.4	2.2	1.2
Rent	24,378	0.5	1.0	0.3
Rent free	48,346	1.0	1.1	0.9
Others	11,095	0.2	0.3	0.2

1/ Excluding unknown

3. Source of drinking water and water supply

As for source of drinking water in the Northeastern Region, it was found that 66.0 percent of households drink rain water, followed by 16.6 percent of drink bottled water or water from vending machine and 7.7 percent of treated tap water (boiled/filtered). In considering by area, it was found that households in municipal area had higher proportion of drinking bottled water and tap water that has been boiled or filtered than the ones in non-municipal area. But proportion of households drinking rain water in non-municipal area was higher than the ones in municipal area.

For water supply, 80.5 percent of households used tap water, followed by 11.8 percent of underground water. Proportion of households using tap water in municipal area was higher than the ones in non-municipal area ; 85.0 and 78.5 percent, respectively (Table16).

Table 16 Percentage of private households by source of drinking water, water supply and area

Source of drinking water and water supply	Total	Area	
		Municipal area	Non-municipal area
Drinking water ^{1/}	100.0	100.0	100.0
Tap water	5.4	4.6	5.7
Treated tap water (boiled/filtered)	7.7	13.6	5.0
Underground water	2.0	1.6	2.2
Well water	2.2	1.4	2.5
River, stream, canal, waterfall	0.1	0.1	0.2
Rain water	66.0	44.6	75.6
Bottled water, water from vending machine	16.6	34.1	8.8
Others	a	a	a
Water supply ^{1/}	100.0	100.0	100.0
Tap water	80.5	85.0	78.5
Treated tap water (boiled/filtered)	1.0	0.7	1.1
Underground water	11.8	9.0	13.0
Well water	4.0	3.2	4.4
River, stream, canal, waterfall	0.6	0.4	0.7
Rain water	2.1	1.7	2.3
Others	a	a	a

1/ Excluding unknown

a Less than 0.1 percent

4. Type of toilet in the household

From table 17, illustrating type of toilet in the households of the Northeastern Region including hygiene and convenience in using toilet, it was found that almost all households had sanitary toilets (99.8 percent). Households residing in municipal area had a high proportion of using a sitting toilet comparing to those in non-municipal area (22.0 and 8.1 percent, respectively). In contrast, the percentage of using a squat toilet was higher in non-municipal area (89.8 and 73.9 percent, respectively).

Table 17 Percentage of private households by type of toilet used and area

Type of toilet used ^{1/}	Total	Area	
		Municipal area	Non-municipal area
Total	100.0	100.0	100.0
Sitting toilet	12.4	22.0	8.1
Squat toilet	84.9	73.9	89.8
Sitting and squat toilet	2.5	4.0	1.8
Others ^{2/}	0.2	0.1	0.3

1/ Excluding unknown

2/ Including pit toilet, defecate into river or canal and no toilet

5. Use of cooking fuel

Regarding the use of cooking fuel by households in the Northeastern Region, it was found that 52.3 percent of them used charcoal, firewood, scrap wood fuel for cooking, followed by 43.5 percent use gas (LPG) and 2.8 percent use electric. In considering by area, it was found that households in municipal area had higher proportion of use gas to cook than the ones in non-municipal area, while households in non-municipal area use charcoal, firewood, scrap wood, with higher proportion than those in municipal area (Table 18).

Table 18 Percentage of private households by type of cooking fuel and area

Type of cooking fuel ^{1/}	Total	Area	
		Municipal area	Non-municipal area
Total	100.0	100.0	100.0
Gas	43.5	56.3	37.8
Charcoal, firewood, scrap wood	52.3	34.5	60.2
Electricity	2.8	6.3	1.3
Kerosene and others	a	0.1	a
Not cooking	1.4	2.8	0.7

1/ Excluding unknown

a Less than 0.1 percent

6. Possession of household equipments

As for possession of equipments in the household, it was found that households in municipal area possess VCD/DVD player, mobile phone, computer, microwave/oven, washing machine, air-condition, car, pick-up truck, van and motorcycle more than households in non-municipal area, while households in non-municipal area possess television, refrigerator, motorcycle and 2 or 4-wheels tractor for agricultural more than the ones in municipal area.

Besides, they were interviewed whether they had the following instruments and use of technology devices such as cable TV, satellite and use of internet in the households. It was found that percentage of households in municipal area had cable TV and used internet was higher than those in non-municipal area, while the use satellite less than in non-municipal area (Table 19).

Table 19 Number and percentage of private households by ownership of household appliance, technology use and area

Ownership of household appliance and technology use	Total		Area (Percent)	
	Number	Percent	Municipal	Non-municipal area
Ownership of household appliance	(5,339,779)	(100.0)	(100.0)	(100.0)
Television	5,140,076	96.3	96.2	96.3
VCD/DVD player	3,829,614	71.7	73.1	71.1
Mobile phone	4,816,172	90.2	92.0	89.4
Computer	1,093,644	20.5	31.3	15.6
Refrigerator, freezer	4,525,449	84.8	84.7	84.8
Microwave/Oven	593,165	11.1	18.1	8.0
Washing machine	2,549,046	47.7	56.4	43.9
Air condition	460,827	8.6	17.4	4.7
Car/ Pick-up truck/ Van	1,479,140	27.7	36.0	24.0
Motorcycle	4,482,570	83.9	85.3	83.3
4-wheels tractor	175,824	3.3	2.4	3.7
2-wheels tractor	1,863,272	34.9	22.6	40.4
Technology use	(5,339,779)	(100.0)	(100.0)	(100.0)
Cable TV	446,963	8.4	17.7	4.2
Satellite	1,618,417	30.3	30.2	30.3
Internet	352,913	6.6	13.9	3.3