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# Measuring the Information Society in Thailand

The 8<sup>th</sup> World Telecommunication/ICT Indicators Meeting

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Thailand

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# Measuring the Information Society in Thailand

## Abstract

The structure of the Thai society has been changed in many aspects over the past 10 years. There have been many changes in contemporary Thai society, remarkably, the transformation into information society. Thai people and youth are increasing their use of technology in their daily life. This can be seen in the number of computer and internet users increase slightly while mobile telephone has rapidly increased.

The use of technology is considered an important opportunity and threat facing Thai society. The increasing use of technology can be considered a good opportunity which will allow Thai citizens to access more information and knowledge more quickly and to apply it towards improving their lives. On the other hand, it can also be a threat if the use of technology is not appropriate.

In response to the social changes, the ICT survey conducted by the National Statistical Office will be mechanisms for measuring the information society and driving towards the appropriate information in Thailand.

## Introduction

Measuring statistically the access to and use of ICTs has become an important element of the national ICT policy. Producing ICT indicators is considered key to monitoring and assessing progress in the implementation of national ICT plans, to compare ICT developments in Thailand with other countries and to help in future policy making (Smutkupt and Pooparadai, 2005). As established in the national ICT plan, the National Statistical Office under the Ministry of Information and Communication Technology has conducted the direct ICT survey and ICT indicators to support and create policies and plans, as well as to monitor and evaluate the development of Information and Communication Technology from the First and the Second ICT Master Plan. The survey shows the accessibility and use of ICT in households and individuals, the use of ICT in establishments and e-Commerce business and the use of ICT in educational institution. This paper, however, highlight only measuring society on access to and use of ICT by households and individuals.

## ICT Statistics and Policy making

Currently, Thailand's national ICT policy is based on the Second ICT Master plan (2009-2013). This ICT Master Plan carries forward policies from the IT 2010 policy framework and the First ICT Master Plan. At the same time, it puts in place new policies and sharpens the focus on certain key area, in response to technological, economic and social change that have presented both opportunities and challenges to Thailand. It addresses exiting weaknesses and builds up on existing strengths, so that Thailand can maximize benefits from ICT in social and economic development in the most efficient and effective manner, in order to achieve the development goals laid out in the National Economic and Social Development Plan. It had the general goal of fostering Thailand's development through ICT and focused on six main objectives: The strategies can be described as follows:

### Strategy 1: Develop ICT professionals and general population to be information literate

The aim of this strategy is to accelerate the development of personnel of adequate quantity and quality to support the development of Thailand into a knowledge and innovation-based society. Both ICT professionals as well as personnel in other fields, along with youth, the disadvantaged, the people with disabilities and citizens at all levels should have the knowledge and skills to be information literate. More specifically, they should have the knowledge and skills to create, produce, and use ICT in an efficient, effective, ethical and considerate manner.

### Strategy 2: Strengthen National ICT governance

This strategy aims to improve mechanisms and processes of ICT management and monitoring to achieve good governance framework by emphasizing on ensuring operational unity, efficient use of resources and participation from all sectors.

### Strategy 3: Develop ICT infrastructure

This strategy aims to develop and manage ICT infrastructure in order to provide universal access to businesses and citizens around the country, including the disadvantaged and people with disabilities. It will encourage businesses to put in place infrastructure that can keep up with technological evolution, in order to meet increasing consumer demand. The infrastructure should support multimedia services, e-Commerce and other services that are useful for modern lifestyles in a knowledge-based society. At the same time, this strategy also focuses on reducing the digital divide which will then lead to a peaceful and happy society where people enjoy a better quality of life.

### Strategy 4: Use of ICT to support good governance in public administration and services

Government agencies should use ICT to improve governance in administration and services. A citizen-centric approach should be adopted to provide services in an efficient, effective, transparent and just manner. Participation from all relevant sectors should be encouraged.

### Strategy 5: Upgrade competitive capacity of the ICT industry to add value and increase earnings

This strategy seeks to upgrade competitiveness of Thai ICT businesses by promoting research, development and innovation by the public sector, academic sector and private sector to upgrade technological capability of the Thai ICT businesses to more upstream technology. Technology transfer of research outputs to businesses should be encouraged. The businesses environment should also be improved. The priority sectors are software industry and digital content production industry, with the aim to increase the sector's contribution to national economy and earnings. For other industries that have potential, such as the electronics industry (embedded systems or advanced electronic design) and the telecommunications equipment industry, the focus will be on research and development to build upstream capacity. This will allow them to be developed into income generating industries in the future.

### Strategy 6: Use ICT to build sustainable competitiveness for Thai industries

This strategy aims to promote access and use of ICT in the production of goods and services in all sectors to enhance competitiveness by increasing domestic value-added and at the same time being environmentally friendly. This will help prepare businesses to compete under global free trade regimes in the future. Special emphasis will be given to sectors in which Thailand has comparative

advantage and potential to compete, such as agriculture, health services and tourism. Small and medium enterprises (SMEs) as well as community enterprises will also be targeted for development

## Status of ICT Development in Thailand

In the global context, the development of ICT in Thailand can be considered average, when measured against worldwide indices such as the “Networked Readiness Ranking” and “e-Readiness Ranking” indices. However, when Thailand is compared to other countries in Asia, especially with neighboring countries such as Singapore and Malaysia, it turned out that they are more developed than Thailand in all indices. The main factor holding back the development of ICT in Thailand in all indices is the readiness of the information and communication infrastructure, which is still not widely available and accessible.

According to the study of current status of ICT infrastructure in form of broadcasting, Thai households have accessed to public television and radio thoroughly. The proportion of households with a radio had decreased from 63.6% in 2004 to 58.0% in 2009 while the proportion of households with a television had increased from 93% in 2004 to 96.3% in 2009. Moreover, it was also observed that all regions had quite the same rate.

For the fixed line phone in Thailand, the service was primarily in the city and not thoroughly distributed to rural areas. In the present, the use of fixed line telephone is likely to continuously decrease: the proportion of households with of fixed line telephone in 2005 was 25% and decreased to 21.4 % in 2009. Since population prefers to use mobile phones rather than fixed line telephones.

**Table 1 Change in household level of access to ICT: 2004 - 2009**

Indicator	2004	2005	2006	2007	2008	2009
Proportion of households with a radio						
Total	63.6	na	60.8	60.3	58.5	58.0
Urban	68.7	na	68.0	70.4	64.5	61.8
Rural	58.5	na	56.6	56.3	56.1	56.2
Proportion of households with a television						
Total	93.0	na	94.0	95.3	96.1	96.3
Urban	95.2	na	95.9	96.4	97.0	97.5
Rural	92.2	na	93.2	94.7	95.6	96.0
Proportion of households with fixed line telephone						
Total	na	25.0	23.4	23.4	22.6	21.4
Urban	na	47.8	44.5	44.4	43.1	41.1
Rural	na	14.0	13.6	13.6	13.1	12.0

Source: 1/ Household Socio-Economic Survey, National Statistical Office.

2/ ICT Household Survey, National Statistical Office.

According to the statistics related to the development of ICT human resources, data from the Labor Force Survey 2009 revealed that the total number of ICT employed persons was 416.9 thousand persons from 37.7 million persons or 1.11%. The proportion of ICT employed persons increased very slightly from 0.88% in 2001 to 1.11% in 2009. However, the proportion of ICT employed persons is likely to continually increase because of various reasons; for example, people are more aware of and emphasize the ICT Professional, there are vivid policies to encourage ICT professional as mentioned in strategy 1 of the 2<sup>nd</sup> ICT Master Plan.

**Table 2 Proportion of ICT personnel per total employed persons: 2001 – 2009**

Item	2001	2002	2003	2004	2005	2006	2007	2008	2009
ICT Personnel (thousand persons)	282.6	303.1	320.0	339.6	348.1	359.3	365.3	403.8	416.9
Total Employed Persons (million persons)	32.1	33.1	33.8	34.7	35.3	35.7	36.3	37.2	37.7
Proportion of ICT Personnel per Total Employed Persons (%)	0.88	0.92	0.95	0.98	0.99	1.01	1.01	1.09	1.11

*Source: Labor Force Survey, National Statistical Office.*

## Measuring household ICT access and individual use

### Background

The Thai NSO compile The Information and Communication Technology Survey (Household) since 2001 in accordance with the international statistical guidelines. Since 2003, the survey has been conducted annually by attaching the questionnaire with the Labor Force Survey. However, because the demand of using statistics about information and communication technology has significantly increased, since 2005 the questionnaire has been separated from the Labor Force Survey in order to add more questions to serve demand of users. For this year, the survey was conducted in the 1st quarter (January – March). The survey has the same sample as the Labor Force survey, consisting of private households and special household selected as sample households at the total number of 79,560 households. The data was collected by viewing heads of households and members of households 6 years old and over.

### Objective

1. To know the number of persons using computer and internet, mobile phone, fixed line telephone and related device.
2. To know the number of household having information and communication technology device including fixed line telephone, computer, fax and internet access in household.
3. To know the detail of the use of computer, internet, mobile phone of persons such as location of use, activity of use, time of use, and budget for purchasing.

### Benefit of the survey

1. The survey informs the development of the use of technology in terms of computer, internet and mobile phone used by persons.
2. The survey informs the number of information and communication technology devices in household as well as the detail of related devices used.
3. The survey results can be used as indicators of the country's development of information and communication technology.

### Survey methodology

This survey adopted Stratified Two-Stage Sampling; province is strata. The primary sampling units were blocks in municipal areas and villages in non-municipal areas and the secondary sampling units were private households and persons in special households. In practice, the Household ICT Survey used the sampling households as the Labor Force Survey that is conducted monthly and has the sample size of 26,520 households. For this Household ICT Survey, the survey conducted in only 1 quarter and combine data from 3 months to present results in province level.



## Collected data

The survey has questions for both household and individual levels. The household-level data consist of the possession of Information and Communication Technology devices in various type including fixed line telephone, computers, fax and internet access in households as well as other related questions. The individual-level data consist of the use of computer, internet, mobile and the detail of computer, internet and mobile use such as location, activity, frequency, internet-use expense per month, goods and services ordered via internet, type of the goods and services bought via internet, and the payment method for goods and services bought via internet, the reason not to buy goods and services and other related questions.

## Data Dissemination

1. Hardcopy publication,
2. Electronic publication (on website [www.nso.go.th](http://www.nso.go.th))
3. CD ROM
4. Geographic Information Systems (GIS)

## ICT Usage in Thailand

Data from the ICT Household Survey in 2009 revealed that the popularity of mobile phone among Thai population has rapidly increased from 28.2% in 2004 to 56.8% in 2009. However, the use of computer and internet increase slightly; from 2004-2009 the proportion of computer use increased from 21.4% to 29.3% and internet from 11.9% to 20.1%, because of the expansion in ICT infrastructure of the country. Moreover, internet access of household increased at the low proportion from 5.7% in 2004 to 9.5% in 2009, broadband internet access increased from 52.8% in 2006 to 55.8% in 2009.

**Table 3** Penetration and usage on ICT Devices; 2004 – 2009 (Population age 6 years and over)

Using ICT	2004	2005	2006	2007	2008	2009
Proportion of individuals who used a mobile phone	28.2	36.7	41.6	47.3	52.8	56.8
Proportion of individuals who used a computer	21.4	24.5	25.9	26.8	28.2	29.3
Proportion of individuals who used the Internet	11.9	12.0	14.2	15.5	18.2	20.1
Proportion of households with Internet access	5.7	6.2	7.2	7.6	8.6	9.5
Proportion of households with access to the Internet by type of access						
Narrowband	-	-	26.3	21.7	22.8	24.0
Fixed broadband	-	-	52.8	58.0	48.7	55.8
Mobile broadband	-	-	-	-	4.6	7.7

*Source: ICT Household Survey, National Statistical Office.*

According to the ICT Household Survey in 2009, The proportion of internet users in urban area was higher than that in rural area (32.7% and 14.5%, respectively). The proportions of internet use of male and female were 19.8% and 20.4%, respectively. Considering the rate of using internet in each age group, persons age group 15 – 24 years had the highest proportion of using internet at 47.3%, followed by age group 6 – 14 years at 29.0% and age group 25 – 34 years at 21.5%.

Educational institution was the location that people use internet the most at 46.8%, home at 33.4% and office at 29.0%. For the activity, the majority of people used internet to search for information or read news at 80.6%, secondly playing game at 23.8% and sending or receiving email at 18.6%. For frequency of internet use, more than a half of internet users used internet quite frequently (1-4 days per week) at 59.8% and secondly used frequently (5-7 days per week) at 25.4%. Among internet users, only 3.3% reserve or purchase goods or services via internet and primarily they were in 25-34 age group at 38.2%. Type of goods or services purchased via internet was e-Ticket at 17.4%, fashion/jewelry at 14.7%, books at 14.5%, and entertainment goods/sport utilities/stationeries at 13.7%. The main payment method was debit/credit card at 36.3%, bank transfer at 29.2%, deducting from saving account at 13.0% and cash at 8.9%.

**Table 4 Proportion of population aged 6 years and over who used internet by area, sex, age: 2004 - 2009**

Area, sex and age group	2004	2005	2006	2007	2008	2009
Area	11.9	12.0	14.2	15.5	18.2	20.1
Urban	21.4	21.2	23.4	24.8	29.0	32.7
Rural	7.2	8.0	10.2	11.4	13.4	14.5
Sex	11.9	12.0	14.2	15.5	18.2	20.1
Male	11.3	11.8	13.9	15.2	17.9	19.8
Female	12.4	12.2	14.6	15.9	18.5	20.4
Age group	11.9	12.0	14.2	15.5	18.2	20.1
6 - 14	7.2	11.8	15.5	19.3	23.6	29.0
15 - 24	32.1	31.0	36.5	39.7	44.6	47.3
25 - 34	12.2	12.4	15.2	15.9	19.4	21.5
35 - 49	7.4	7.1	8.0	8.4	10.3	11.9
50 year & over	1.9	2.0	2.5	2.9	3.4	4.0

*Source: ICT Household Survey, National Statistical Office.*

**Table 5 Individuals who used a computer, internet and mobile cellular telephone in the last 12 months: 2009**

Indicators	Computer		Internet		Mobile cellular telephone	
	Male	Female	Male	Female	Male	Female
Total	29.4	29.1	19.8	20.4	58.3	55.4
Urban	43.0	41.0	33.4	32.2	70.7	67.2
Rural	23.6	23.6	14.0	15.0	53.0	50.0
Age						
6-14	65.1	65.7	28.2	29.7	15.1	72.5
15-24	52.0	59.2	43.8	51.0	70.2	74.9
25-59	18.2	18.3	13.6	14.0	71.7	67.6
60+	2.0	0.7	1.4	0.5	34.4	21.3
Education						
Primary and lower secondary education	22.0	20.1	12.8	12.3	48.5	44.4
Upper secondary or post-secondary non-tertiary	38.3	41.4	29.5	32.6	84.4	85.2
Tertiary education	73.0	76.7	61.3	65.5	95.0	95.7
Labor force status						
Employed	17.4	20.1	12.8	15.5	69.7	67.1
Unemployed	39.0	52.2	31.0	39.2	64.8	80.5
Not in the labor force	5.2	29.6	42.4	25.9	52.3	50.4

Source: ICT Household Survey, National Statistical Office.

**Table 6 Proportion of Internet users by locations: 2004 - 2009**

Location <sup>1/</sup>	2004	2005	2006	2007	2008	2009
Home	24.9	32.5	33.5	31.5	34.1	33.4
Office	22.9	28.0	28.4	28.2	29.6	29.0
Place of education	31.4	42.6	45.6	48.2	46.4	46.8
Commercial Internet access facility	19.0	17.8	17.3	15.8	18.8	21.8
Community Internet access facility	<u>2/</u>	0.3	0.3	0.3	0.6	0.6
Another person's home	1.3	1.4	1.5	1.3	2.4	2.1
Any place via a mobile cellular telephones	0.1	0.1	0.2	0.4	0.3	<u>2/</u>

Source: ICT Household Survey, National Statistical Office.

Note: <sup>1/</sup> Answer only up to two choices

2/ Do not classify activities

**Table 7 Proportion of Internet user by activity to use: 2004 - 2009**

Activity to use <sup>1/</sup>	2004	2005	2006	2007	2008	2009
Sending or receiving e-mail	8.4	19.5	19.0	18.4	22.6	18.6
Game	17.0	22.1	21.5	22.7	24.5	23.8
Search data or News	59.6	81.2	83.3	84.8	81.9	80.6
e-Commerce	9.4	2.7	2.9	1.4	2.8	2.5
Download	2.1	4.0	5.1	5.1	7.7	7.6
Chatroom or Webboard	0.3	5.2	4.2	3.2	1.8	1.7
e-Learning	<u>2/</u>	4.9	3.6	<u>2/</u>	3.2	3.1
Tel-abroad	<u>2/</u>	<u>2/</u>	<u>2/</u>	<u>2/</u>	0.2	0.2
Chat	2.3	<u>2/</u>	<u>2/</u>	<u>2/</u>	3.0	3.8
E-banking	<u>2/</u>	0.8	1.1	3.0	0.6	3.1

Source: ICT Household Survey, National Statistical Office.

Note: <sup>1/</sup> Answer only up to two choices

2/ Do not classify activities

**Table 8 Proportion of online purchaser by type of goods and services to buy: 2007 - 2009**

Type of goods and services <sup>1/</sup>	2007	2008	2009
Fashion or jewelry	10.5	18.1	14.7
Book or magazine	13.7	17.7	14.5
Technology, mobile or camera	13.0	14.0	11.3
Electric	8.8	6.7	6.1
Food, drink or health	6.8	4.2	12.6
Entertainment goods, sport utilities, stationery	11.9	11.4	13.7
Furniture or office product	5.1	7.5	5.3
e-Ticket	2/	14.5	17.4
Reserved	8.0	7.9	8.6
Toys or gift, Games	4.8	3.1	3.3
Software	4.8	6.5	6.3
Computer games	2/	2.8	3.3

Source: ICT Household Survey, National Statistical Office.

Note: <sup>1/</sup> Answer only up to two choices

<sup>2/</sup> Do not classify activities

## Data Limitations

### Reliability

Because the National Statistical Office has many household surveys in every year, it is required to reduce budget by using the same sample of ICT household Survey with the Labor Force Survey. Accordingly, the results are possibly slightly incorrect due to sampling error and non-sampling error; for example, interviewees do not give real data, questionnaires are not complete, and there are errors in coding, or recording. However, the National Statistical office has tried to control data quality in order to have the least mistake. Moreover, the post enumeration survey was conducted after compiling the data of ICT Household Survey.

### Comparability

By “standards” we are referring to concepts, units, scope, definitions, indicators, classifications and model question by using the core ICT indicators. Moreover, after conducting the Population and Housing Census in 2010 survey, the NSO will revised the classifications of Occupation for household survey based on ISCO-2008 and classifications of Economic Activity based on Thailand Standard Industrial Classification (TSIC) 2009 which was applied from International Standard Industrial Classification (ISIC rev.4), ASEAN Common Industrial Classification (ACIC) and East Asia Manufacturing Industrial Classification (EAMIC) Ver.1.

### Completeness

At the level of international comparison, it was found that some indicators were not collected or double collected. As a result, the Ministry of ICT has arranged many conferences to make an agreement among public and private agencies for their responsibility in collecting ICT data.

## Conclusion

ICT Statistics are necessary for planning, monitoring and evaluating ICT Master Plan. At present, there are many agencies collecting ICT statistics in Thailand. As a result, some duplicated indicators were collected. For measuring the information society, National Statistical Office has collected the annually ICT household survey since 2001 and ad hoc survey of ICT educational institution in 2008. For measuring the information economy, National Statistical Office has collected the annually ICT business survey since 2004 and e-Commerce survey since 2007. Moreover, the questions on ICT are also included in this round of national population census in 2010 which will be benefit for planning ICT development both in national and local levels.

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## Annexes

## Annex 1 : Questionnaire Design

Topic	Population
Section 1 : Individual characteristics	
Relationship to head of household	All individuals
Sex	All individuals
Age	All individuals
Marital Status	All individuals
Section 2 : Educational Attainment	
Level of education	Individual aged 6 years
Section 3 : Activity Status	
Employment status (last 12 months)	Individual aged 15 years <sup>+</sup>
Occupation (last 12 months)	Individual aged 15 years <sup>+</sup>
Industry (last 12 months)	Individual aged 15 years <sup>+</sup>
Work status (last 12 months)	Individual aged 15 years <sup>+</sup>
Section 4 : Computer Usage	
Computer use (last 12 months)	Individual aged 6 years <sup>+</sup>
Type of computer use (last 12 months)	Individual aged 6 years <sup>+</sup>
Location of computer use (last 12 months)	Individual aged 6 years <sup>+</sup>
Computer activities undertaken (last 12 months)	Individual aged 6 years <sup>+</sup>
Frequently of computer use (last 12 months)	Individual aged 6 years <sup>+</sup>
Number of hours of using computer (last 12 months)	Individual aged 6 years <sup>+</sup>
Section 5 : The Internet Usage	
Internet use (last 12 months)	Individual aged 6 years <sup>+</sup>
Location of internet use (last 12 months)	Individual aged 6 years <sup>+</sup>
Device of connect to internet (last 12 months)	Individual aged 6 years <sup>+</sup>



## Questionnaire Design (continued)

Topic	Population
Time of using internet (last 12 months)	Individual aged 6 years <sup>+</sup>
Frequently of internet use (last 12 months)	Individual aged 6 years <sup>+</sup>
Number of hours of using internet (last 12 months)	Individual aged 6 years <sup>+</sup>
Internet activities undertaken (last 12 months)	Individual aged 6 years <sup>+</sup>
Purchasing goods or services via internet (last 12 months)	Individual aged 6 years <sup>+</sup>
Type of goods or services purchased via internet (last 12 months)	Individual aged 6 years <sup>+</sup>
Monetary value for purchasing goods or services via internet (last 12 months)	Individual aged 6 years <sup>+</sup>
Reasons for not purchasing via internet (last 12 months)	Individual aged 6 years <sup>+</sup>
Section 6 : Mobile phone ownership	
Mobile phones use (last 12 months)	Individual aged 6 years <sup>+</sup>
Number of mobile phone	Individual aged 6 years <sup>+</sup>
Average for mobile phone per month	Individual aged 6 years <sup>+</sup>
Type of services via mobile phone	Individual aged 6 years <sup>+</sup>
Mobile phone activities undertaken (last 12 months)	Individual aged 6 years <sup>+</sup>
Section 7 : Household access to ICT	
Number of fixed line telephone	Head of household or representative
Number of facsimile machine	Head of household or representative
Reasons for not having computer/PDA	Head of household or representative
Household bought equipment (last 12 months)	Head of household or representative
Volume of expenditure for computer equipment (last 12 months)	Head of household or representative
Household access to the Internet	Head of household or representative
Type of Internet access services	Head of household or representative
Household needed government regulate ICT	Head of household or representative
Planning to connect the broadband	Head of household or representative
Average income of household	Head of household or representative

## Annex 2 : Sources and ICT Indicators in Thailand

Basic Core Indicators on Access to, and Use of, ICT by Households and Individuals  
(Concordance With Indicators Listed in Partnership on Measuring ICT for Development)

Core Indicators	Proportion	Source
HH1 Proportion of households with a <u>radio</u>	58.0	a
HH2 Proportion of households with a <u>TV</u>	96.3	a
HH3 Proportion of households with a <u>telephone</u>		b
Fixed telephone only	1.7	
Mobile cellular telephone only	67.8	
Both fixed and mobile cellular telephone	19.7	
HH3 Proportion of households with a <u>computer</u>	20.3	b
HH 5 Proportion of individuals who <u>used a computer (from any location) in the last 12 months</u>	29.3	b
HH6 Proportion of households with <u>Internet access at home</u>	9.5	b
HH7 Proportion of individuals who <u>used the Internet (from any location) in the last 12 months</u>	20.1	b
HH8 <u>Location of individuals who use of the Internet in the last 12 months:</u>		b, c
Home	33.4	
Work	29.0	
Place of education	46.8	
Another person's home	2.1	
Community Internet access facility	0.6	
Commercial Internet access facility	21.8	
Any place via a mobile cellular telephone	-	
Any place via other mobile access devices	-	
HH9 <u>Internet activities undertaken by individuals in the last 12 months (from any location) :</u>		b, c
Getting information about foods or services	2.5	
Getting information related to health or health services	-	
Getting information from general government organizations	80.6	
Interaction with general government organizations	-	
Sending or receiving e-mail	18.6	
Telephoning over the Internet/VoIP	0.2	
Posting information or instant messaging	5.4	
Purchasing or ordering goods or services	3.1	
Internet banking	-	
Education or learning activities	3.1	
Playing or downloading video games or computer games	23.8	
Downloading movies images, music, watching TV or video, or listening to radio or music	5.7	
Reading or downloading online newspapers or magazines, electronic books	7.6	

HH10 Proportion of individuals with <u>use of a mobile cellular telephone</u>	56.8	b
HH11 Proportion of households with access to the <u>internet by type of access</u> (narrowband, broadband fixed, mobile)		b, d
Narrowband	2.3 (24.0)	
Fixed broadband	2.3 (55.8)	
Mobile broadband	0.7 (7.7)	
HH12 Frequency of individual use of the internet the last 12 months (from any location) :		b
At least once a day	25.4	
At least once a week but not every day	59.8	
Less than once a week	14.8	
HHR1 Proportion of households with electricity	98.8	a

Note: a. Household Socio-Economic Survey in 2009

b. ICT Household Survey in 2009

c. Answer only up to two choices

d. Household can answer one access service

in ( ) is divided by households with internet access

HH8, HH9, HH12 The denominator is number of internet user