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COUNTRY PAPER: BRUNEI DARUSSALAM

Country Paper: Brunei Darussalam

ICT Household Statistics- The Case of Brunei Darussalam

Introduction

Organization Structure of Department of Statistics,

The Department of Statistics (DOS) under Department of Statistics and Development (JPKE) consisted of two major divisions: Economic Statistics Division, which includes National Account Statistics Section, Balance of Payment Section, Indexes Section and Social Statistics Division, which include Social Statistics Section and Survey Section.

The Department of Statistics (DOS), JPKE main functions is to act as the focal point for all matters pertaining statistical activities and development at national, regional and international level. DOS is responsible to conduct decennial Population and Housing Census and Surveys and large scale surveys such as Household expenditure survey, Labour force survey, and also annual Establishment Census and surveys for national account purposes. The department also collects data from administrative sources from government ministries and departments and private sectors.

The Authority for Info-communications Technology Industry of Brunei Darussalam (AiTi) is a statutory body established by the AiTi Order, 2001 on 1 January 2003. Its main areas of responsibility are managing of the national radio frequency spectrum as well as regulate and develop the local ICT industry¹. Among the future plans in enhancing the ICT development in Brunei Darussalam further, AiTi will be conducting various ICT surveys including collaboration with related agencies such as the Department of Statistics (DOS) of JPKE².

Data Collection on ICT Household Statistics

Population and Housing Census 2001

DOS under JPKE conducted the Population and Housing Census in August 2001. The census was conducted on a *De facto basis* in which all persons who spent the census night (midnight 21 August, 2001) in Brunei Darussalam was counted. The population enumerated in census 2001

¹ Further information can be obtained at the official website: www.aiti.gov.bn

² Still tentative upon approval.

was 332,844 persons. Total housing unit recorded was 52,540, of which 97.1 was private housing unit. Total households counted were 55,696 of which 96.7 percent (53,878) was private households. The institutional household covered the remaining 3.3 percent. The 2005 estimated population was 337,100 persons.

For the first time in census 2001 the following special questions were asked of eligible or targeted sub population: knowledge and usage of computers and internet services. These questions were:

- Does the person know how to use a computer;
- Did the person use computer last week;
- Does the person know how to use internet; and
- Did the person use computer last week.

These questions will be deliberately included so as to able to gather some baseline information for policy and planning purposes for the current ICT development. The question of ICT also aim to provide benchmark on the stocktaking of statistical measurement in the country as in general, knowing how to use internet is a essentially common phenomenon among the young adults. Its findings aim to provide estimate of the penetration rates or diffusion of computer and internet knowledge across socio demographic group in the country.

Population with Knowledge and usage of computer

Based on the questions in the special question on computer knowledge and usage in the census, some useful summary were that among the eligible population of the 270,689 population aged 9 years and over, more than 43 per cent (116,097) knew how to use the computers and more than 30 per cent were active use of computers. Furthermore, slightly less than 27 per cent of this population that knew how to use the internet and only about 18 per cent were active Internet users. There were some significant variations in the penetration rates of ICT knowledge and usage by gender, community occupation, residential status and school type. The observed differences in penetration rates of ICT knowledge and usage clarify some aspects of the 'digital divide' in Brunei Darussalam. Overall, the findings from these specialized questions do have implications for the public agencies that would be planning e-Government, e- Business and e-society programmes.

1. Household statistics on ICT

A. Total number of Household in Census 2001	55,696
B. Total number Private Household in Census 2001	53,878
C. Number of Household possessed computers	25,123 (46.6%) ³
D. Number of Household with Internet Access	15,541 (61.9%) ⁴

2. A general profile of population and ICT knowledge and Usage

A. Total population in Census 2001	332,844
B. Targeted Population (9 Years above)	270,689
C. Population with computers knowledge	116,097
D. Population with Internet knowledge	72,840
E. Population Active Computer Users	81,382
F. Population Active Internet Users	48,375
G. Population Active Internet Users	male 26,268 female 22,107

3. Gross Penetration Rates Target population (%)

A. Computers knowledge	43
B. Computer Usage	30
C. Internet knowledge	27
D. Internet Usage	18

**Note:-Penetration rates are expressed in percentage and indicate the relative number of people who have certain attributes (e.g. knowledge of computer) within a specific subgroup of population*

Distribution by gender showed that there were slightly more males 59,527 than females (56,570) knowledgeable in computers. Among males person aged 9 to 14 the proportion was 21.4 per cent while among females it was 21.6

³ Proportion to private household.

⁴ Proportion to private household.

From the persons that knew how to use computers 62.7 per cent (72,840) were internet users. For those persons below 30 years of age, the highest computer literate among 5 year age group (excluding the 9 year old) were from the age 10-14 (18.2 per cent) compared 16.4 per cent in the 15-19, 13.6 per cent in 20-24, and 12.3 in 25-29 age group. However, for internet user, the highest proportion of internet user was from age group 15-19 age group (19.3 per cent) followed by 20-24 (16.3 per cent), 10-14 (13.9 per cent) and 25-29 13.3 per cent. There was similar trend for female. However the overall proportion of population age 30 and over internet user was 36.0 per cent; among males, it was 40.5 per cent while among female was 31.0 per cent.

Although about 116,097 who knew how to use the computers, only 82,382 of them have indicated that they had actually used a computer during the week before the census. If we define 'active' computer user as one who knew how to use a computer during the last 7 days before census, then this means that about 70 per cent of them were active during the census period. On the other hand, if we were to consider the target population (270,689) i.e. including both those who knew and those who did not know how to use the computer, then the percentage of active computer relative to this population is only 30 per cent.

On active computer user, 41,847 were males and 39,535 were females, hence there was only a small gender differences. For both gender, the predominant active users were essentially teenagers and young adults, in which 10-14 age group was the largest cohort of active users (more than 16 per cent). Relative to the males, a larger percentage of females were active users in the age groups under 35 but the converse pattern was observed for older age groups. This pattern could be due to the fact that at older age groups females were likely to be less educated and also to be working in occupations that were less likely to use computer than males.

Household statistics on computers

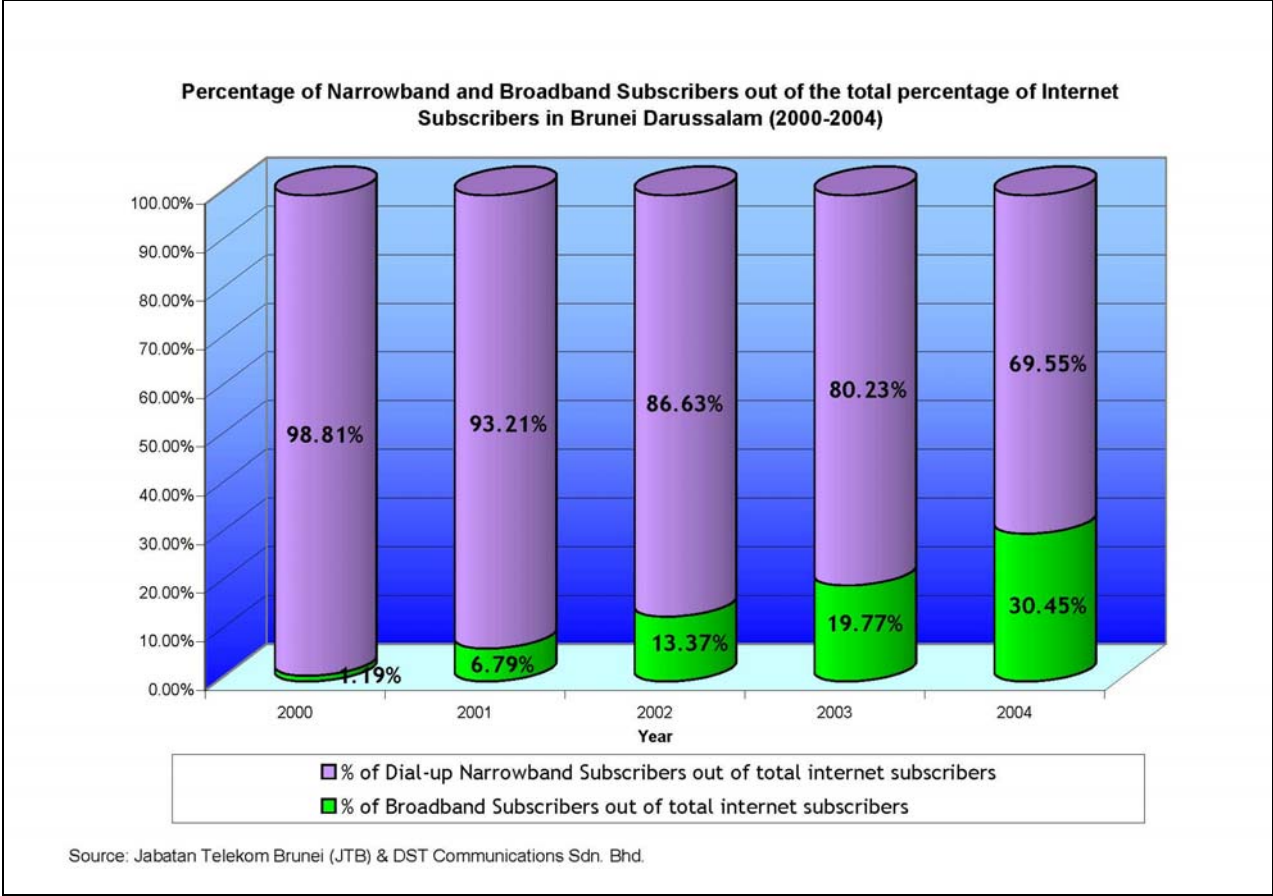
In the household schedule, there were three questions asked on computers, as follows: Does this household own a computer; Number of computer owned which was classified into three categories (Desktop, Laptop and Palmtop), is any of these computer connected to internet. Among the private households, 46.6 per cent (25,124) households had computers.

Further analysis of access to internet showed that of those household that possessed computers, 61.9 per cent (15,541) had internet access.

Internet Subscribers in Brunei

In the year 2003, the internet penetration in Brunei Darussalam is estimated to be 16 per cent. However, within 3 years, as of May 2006, the internet penetration has almost doubled with broadband subscribers of 8,528 subscribers and the number of dial-up subscribers is 8,613 subscribers⁵.

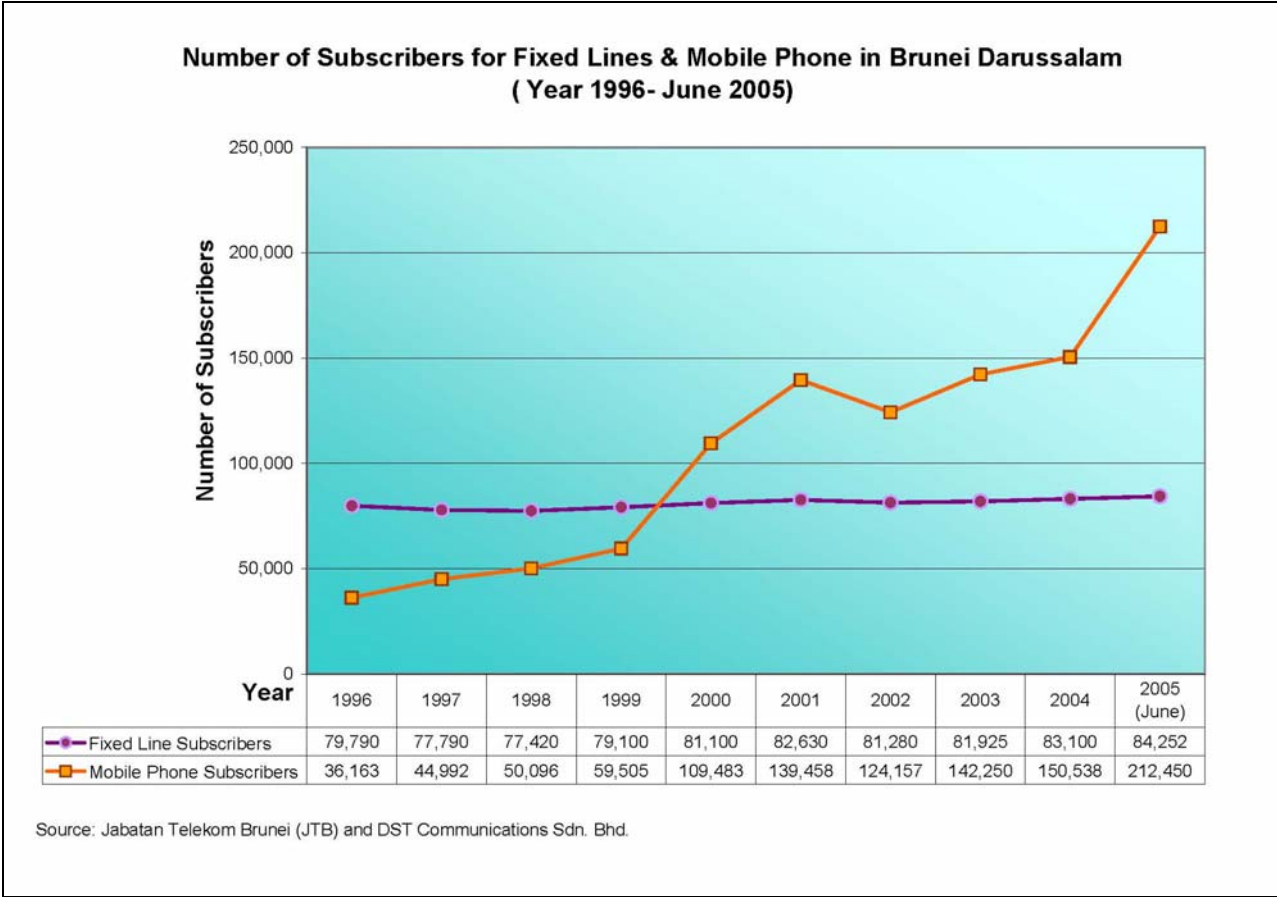
The graph below shows the increase in usage of Broadband among the total internet users in Brunei Darussalam from the year 2000 – 2004.



Note: Telekom Brunei Berhad (TelBru) is formerly known as Jabatan Telekom Brunei (JTB).

⁵ Source: Authority for Info-communications Technology Industry of Brunei Darussalam (AiTi). Figures obtained from Telekom Brunei Berhad (TelBru) only.

Fixed Line and Mobile Penetration in Brunei



ICT Business Statistics

DOS, JPKE Economic Census of 2002 has included in one of the section for the purpose of gauging the level of ICT penetration among the local business community. The questions include whether these enterprises have either internet access, email or website. In 2000, the highest proportion of internet access was among the large enterprises at 92 per cent, followed by the medium enterprises at 45 per cent and the lowest was among the small enterprises at less than a quarter (23 percent). The same pattern and proportions were observed for the year 2001. The findings showed that most of the enterprises already had internet access and also had their own business emails. Only one quarter of these enterprises had developed their own webpage.

ICT indicators -Data collection in Brunei Darussalam Key Indicators (BDKI)

BDKI annual publication minimum set of indicators on internet data. DOS has emphasized to include more information of ICT in future publications.

Five Year National Development Plan (RKN)

The government of Brunei Darussalam has played an important role in the development of ICT. In the 8th National Development Plan (RKN8), information technology with human resource development (HRD) and small and medium enterprises (SMEs) are given emphasis in the national socio-economic development. The government had allocated around 7.2 per cent from the total development allocation (BND 7.3 billion).

In an effort to enhance productivity and efficiency in all administrative levels of the government sector, facilities that enable transactions to be carried out between the government and the public through the internet or the official websites will be widened. The private sector is also encouraged to be more innovative in upgrading access to internet services.

Issues and Challenges

There is an increasing demand of ICT information and indicators by various users due to the rapid development in the field of ICT. Measurement of ICT needs to be looked into closely to produce comparable data at regional and international level.

Difficulties arise in the definitions of computer and internet literacy. DOS recognize the increase in demand of ICT information and indicators and are geared towards collection of more data relating ICT in the country for various uses and for international comparison.

Conclusion

ICT information is very important for developing ICT strategies and policies hence more data should be collected and disseminated for user needs. Brunei Darussalam hoped that UNESCAP will enhance ICT indicator by introducing a framework in measuring ICT and recommended a minimum set of core data to be collected by all countries for data comparability. It is hoped that metadata compilation and guidelines will be available for references.

Brunei Darussalam will continue to participate in any future data collection and analysis of ICT statistics.