

The Availability of ICT Indicators for Households and Individuals: Case of Indonesia

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Problems Encountered

- BPS collects mostly data related to socio-economics and environment, but not yet on ICTs
- Some of BPS' surveys just add a few questions on ICTs
- Maybe no other institutions gather ICTs data directly from respondents (HHs, companies, governments, and others)
- A new statistical data collecting system is necessary

Objective

Identifying the availability of
data sources (BPS) in compiling
ICT indicators
for households and individuals

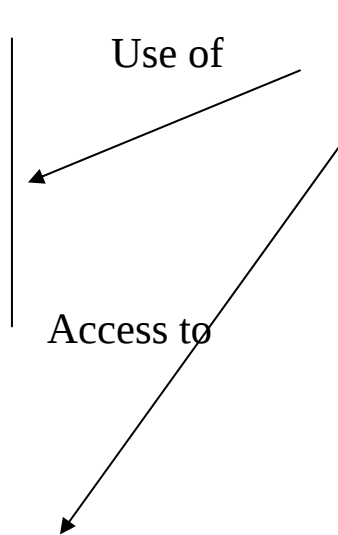
ICT Indicators Framework

Supply

ICT Sectors and
Trade in ICT Goods
(ICT1-ICT4)

Demand

Households and
Individuals (HH1-HH13)
Businesses (B1-B8)
Governments



ICT Infrastructure and
Access (A1-A12)

I N F O R M A T I O N S O C I E T Y

Core Indicators on Access to, and Use of, ICT by Households and Individuals (1):

Cited from “CORE ICT INDICATORS: Partnership on Measuring ICT for Development”

Proportion of HHs with:

- HH1: a radio
- HH2: a TV
- HH3: a fixed line telephone
- HH4: a mobile cellular telephone
- HH5: a computer
- HH7: internet access at home
- HH12: access to the internet by type of access

Core Indicators on Access to, and Use of, ICT by Households and Individuals (2)

Proportion of individuals who used:

- HH6: computer in the last 12 months
- HH8: the internet (from any location) in the last 12 months
- HH9: Location of individual use of internet in the last 12 months
- HH10: Internet activities undertaken by individuals in the last 12 months
- HH11: Proportion of individuals with use of a mobile telephone
- HH13: Frequency of individual access to the internet in the last 12 months (from any location)

Statistical Issues

- BPS follows Official Statistics Principles
- International standard classifications (ISIC, ISCO, HS, and others) are applied in all BPS surveys
- Probability sampling is applied
- Statistical unit: HHs for Susenas, Village for Podes, Establishment for Manufacturing Industry Survey

Indonesia's Experiences

Expected ICTs Data Sources:

National Socio-economic Survey (Susenas)

Village Potential Survey (Podes)

Large and Medium Manufacturing Survey

Foreign Trade Statistics

Availability of ICT Indicators by Data Sources

ICT Indicators	National Socio-Economic Survey (SUSENAS)	Village Potensial Survey (PODES)
HH1: a radio	-	-
HH2: a TV	v	v
HH3: a fixed line telephone	v	v
HH4: a mobile cellular telephone	v	v
HH5: a computer	v	v
HH6: computer in the last 12 months	v	-
HH7: internet access at home	v	v
HH8: the internet (from any location) in the last 12 months	v	-
HH9: Location of individual use of internet in the last 12 months	v	-
HH10: Internet activities undertaken by individuals in the last 12 months	v	-
HH11: Proportion of individuals with use of a mobile telephone	v	-
HH12: access to the internet by type of access	v	v
HH13: Frequency of individual access to the internet in the last 12 months (from any location)	v (Yes, No)	-

National Socio-Economics Survey (Susenas)

- Household approach, divided into two types:
 - Susenas Module with 68.000 samples (HHs)
 - Susenas Core with 270.000 samples (HHs)
 - All provinces
- Susenas Module are divided into three different modules, viz:
 - Module on household income and expenditure:
 - every three year (e.q. 2002, 2005, etc)
 - Module on socio-culture, criminality and tourism,
 - (2003, 2006, etc)
 - Module on health, nutrition, and education cost,
 - (2001, 2004, etc)
- Susenas Core is conducted yearly, limited questions. Started at year 2005. In this core survey several questions on ICTs are added.

Village Potential Survey (Podes)

- Complete enumeration method is used.
- Direct interview by field enumerator to head of village or other village officials.
- The only survey collect information on village potentials.
- BPS runs Podes regularly one or two years before the coming census. For example, Podes SE2006 was done at the year 2005, while the Economic Census 2006 did a year after, that was 2006. Podes SP2010 (Population Census) will be conducted at 2008, while the SP2010 will be run two years after (2010).

Examples of ICT Indicators
from
Various BPS' Data Sources

Tabel 1. Persentase Banyaknya Desa yang Memiliki Prasarana Komunikasi menurut Pulau
Percentage of Villages Having Communication Facility by Province

Prasarana Komunikasi/ Communication Facility	Sumatera	Jawa	Bali + Nusa Tenggara	Kalimantan	Sulawesi	Maluku + Papua	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
<i>Telepon Umum Koin/ Coin Public Telephone</i>							
2000	1,54	13,23	6,58	1,30	3,59	1,74	5,98
2003	1,79	7,86	3,93	1,52	4,08	1,35	4,00
2005	1,52	3,03	2,25	2,03	2,83	1,03	2,20
<i>Wartel/ Telephone Stall</i>							
2000	2,81	21,62	4,63	2,85	4,47	1,81	9,35
2003	10,44	39,51	11,38	10,24	16,54	3,75	19,56
2005	20,40	58,76	20,15	15,73	32,24	7,76	32,07
<i>Warnet/ Internet Shop</i>							
2000	0,47	1,46	0,61	0,39	0,57	0,29	0,80
2003	1,18	0,91	1,25	0,99	1,54	0,80	1,10
2005	0,60	0,59	0,87	0,44	0,88	0,44	0,62
<i>Kantor Pos/ kantor Pos Pembantu Post Office/Subsidiary Post Office</i>							
2000	3,95	5,02	5,38	6,40	4,70	3,02	4,65
2003	3,90	4,03	3,58	5,49	3,66	2,55	3,93
2005	3,44	3,38	3,01	4,20	3,06	1,52	3,26
<i>Pos Keliling/ Mobile post</i>							
2000	17,29	28,29	11,24	12,94	11,11	1,74	18,45
2003	17,84	34,82	13,60	9,92	13,63	2,51	20,17
2005	14,15	21,41	11,35	7,91	8,62	2,21	13,89

Tabel 4. Persentase Rumah Tangga yang Mengakses Internet melalui Komputer di Rumah dan Luar Rumah menurut Provinsi, 2005-2006

Percentage of Households that Accessed the Internet through Computer at Home by Province and Area Type, 2005-2006

Provinsi/Province	Di Rumah/ <i>Inside the house</i>		Di Luar Rumah/ <i>Outside the house</i>					
	2005	2006	Warnet/ <i>Internet corner</i>		Kantor/ Sekolah <i>Office/school</i>		Lainnya/ <i>Others</i>	
			2005	2006	2005	2006	2005	2006
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Nanggroe Aceh Darussalam	0.54	0.59	0.98	1.40	1.08	1.62	0.28	0.47
R i a u	1.08	1.38	0.63	1.07	1.63	2.35	0.10	0.37
Kepulauan Riau	1.81	2.82	2.81	3.74	4.48	6.02	0.88	0.66
DKI Jakarta	5.81	6.26	4.98	8.23	7.48	11.03	1.14	1.58
Jaw a Tengah	0.40	0.68	1.28	1.60	1.20	1.54	0.16	0.17
DI Yogyakarta	1.06	3.06	9.36	14.52	5.52	6.67	0.48	0.87
B a l i	1.30	1.35	1.32	2.78	2.23	3.80	0.12	0.33
Nusa Tenggara Barat	0.27	0.35	0.86	0.62	1.01	0.74	0.34	0.24
Nusa Tenggara Timut	0.22	0.41	0.42	0.44	0.51	0.47	0.22	0.22
Kalimantan Timur	1.97	2.51	1.30	2.18	2.37	4.69	0.87	0.70
Sulaw esi Utara	0.63	0.48	1.74	1.02	1.91	2.08	0.36	0.24
Gorontalo	0.62	0.59	1.29	1.13	1.50	1.11	0.62	0.20
Sulaw esi Selatan	0.57	0.74	1.18	1.35	1.15	1.69	0.26	0.30
M a l u k u	0.20	0.63	0.46	0.61	0.34	0.54	0.08	0.05
Maluku Utara	0.63	0.21	0.73	1.01	0.50	0.86	0.11	0.09
Papua	0.65	0.22	0.46	0.60	1.05	0.95	0.13	0.32
INDONESIA	0.99	1.19	1.56	2.11	1.81	2.43	0.29	0.40

Tabel 2. Banyaknya Desa yang mempunyai Lembaga Pendidikan Keterampilan menurut Provinsi dan Jenis Keterampilan, 2005
Number of Villages Having Skilled Education Institution by Province and Type of Skilled Education, 2005

Provinsi/Province	Komputer/ Computer	Montir Mobil/Motor Motorized Mechanic	Elektronik/ Electronical Mechanic
(1)	(2)	(3)	(4)
Nanggroe Aceh Darussalam	134	124	69
R i a u	164	47	44
Kepulauan Riau	-	-	-
DKI Jakarta	165	58	38
Jawa Tengah	500	136	61
DI Yogyakarta	61	25	12
B a l i	76	11	6
Nusa Tenggara Barat	106	14	16
Kalimantan Timur	116	32	19
Sulawesi Utara	59	30	23
Gorontalo	16	9	7
Sulawesi Selatan	153	38	31
M a l u k u	33	4	5
Maluku Utara	19	-	2
Papua	56	10	8
INDONESIA	4,332	1,201	821

Tabel 3. Persentase rumah Tangga yang Memiliki Telepon, Telepon Seluler, dan Komputer menurut Provinsi, 2005-2006

Percentage of Households Possessing Telephone, Handphone, and Personal Computer by Province and Area Type, 2005-2006

Provinsi/Province	Telepon/ Telephone		Telepon Seluler/ Handphone		Komputer/ Personal Computer	
	2005	2006	2005	2006	2005	2006
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Nanggroe Aceh Darussalam	6.98	5.43	16.01	20.75	1.82	2.01
R i a u	10.11	7.29	27.67	33.95	4.24	4.70
Kepulauan Riau	22.93	17.89	53.94	52.79	5.93	7.05
DKI Jakarta	38.55	38.34	50.00	59.90	13.65	16.99
Jaw a Tengah	6.98	6.07	17.42	21.64	2.20	2.77
DI Yogyakarta	13.14	14.63	39.14	46.57	10.66	15.74
B a l i	17.14	15.27	34.13	42.03	4.58	5.76
Nusa Tenggara Barat	4.54	4.09	11.14	16.84	1.41	2.02
Kalimantan Timur	21.22	18.97	36.42	47.06	6.50	8.38
Sulaw esi Utara	15.83	12.09	18.15	20.80	2.16	2.28
Gorontalo	6.66	5.29	9.61	12.06	2.14	1.63
Sulaw esi Selatan	12.29	12.25	15.31	23.64	2.76	3.21
M a l u k u	10.81	7.82	9.71	14.72	1.61	2.30
Maluku Utara	8.70	4.56	10.48	13.06	1.91	1.92
Papua	12.00	6.14	14.71	15.74	2.30	2.07
INDONESIA	13.10	11.20	19.94	24.60	3.67	4.36

**Tabel 5. Rata-Rata Anggota Rumah Tangga yang Menggunakan Internet di
Beberapa Fasilitas menurut Provinsi, 2005-2006**
*Average Number of Households, Members Using Internet at Several Facilities by
Province and Area Type, 2005-2006*

Provinsi/Province	Warnet/ Internet corner		Kantor/ Sekolah Office/school		Lainnya/ Others	
	2005	2006	2005	2006	2005	2006
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Nanggroe Aceh Darussalam	1.7	1.5	1.7	1.5	1.4	1.8
R i a u	1.5	1.6	1.2	1.4	1.2	1.6
Kepulauan Riau	1.6	1.4	1.4	1.5	1.6	1.5
DKI Jakarta	1.5	1.4	1.4	1.4	1.5	1.3
Jawa Tengah	1.2	1.3	1.2	1.2	1.6	1.1
DI Yogyakarta	1.2	1.2	1.1	1.3	1.3	1.1
B a l i	1.2	1.3	1.3	1.4	1.6	1.6
Nusa Tenggara Barat	1.3	1.3	1.1	1.1	1.1	1.1
Kalimantan Timur	1.4	1.4	1.2	1.3	1.5	1.4
Sulawesi Utara	1.6	1.6	1.6	1.3	1.7	1.0
Gorontalo	1.4	1.5	1.4	1.4	2.3	1.2
Sulawesi Selatan	1.4	1.6	1.2	1.8	1.2	1.6
M a l u k u	1.7	1.3	1.4	1.6	2.3	1.0
Maluku Utara	1.2	1.3	1.1	1.5	2.8	2.2
Papua	1.5	1.4	1.4	1.2	1.7	1.0
INDONESIA	1.4	1.4	1.3	1.3	1.4	1.4

**Tabel 6. Jumlah Perusahaan, Nilai Tambah dan Tenaga Kerja menurut Industri/
Number of workers and Value Added by Industrial Code , 2003 - 2004**

Kode Industri/ Industrial Code	Jumlah Perusahaan/ Number of Establishments		Nilai Tambah (Harga Pasar)/ Value added (at market prices) (000 Rp)		Tenaga Kerja/ Workers	
	2003	2004	2003	2004	2003	2004
(1)	(2)	(3)	(4)	(5)	(6)	(7)
30001	1	1	*	*	1,833	1,833
30003	6	5	16,904,087	12,102,357	1,045	695
30004	1	1	*	*	91	91
31300	64	72	1,017,919,140	1,168,313,213	22,234	23,279
32100	146	158	9,191,623,622	10,541,688,610	76,109	87,213
32200	17	15	517,355,070	1,084,758,178	6,099	6,369
32300	43	46	6,224,630,520	6,388,080,035	38,896	39,287
33121	8	9	31,212,546	61,680,616	535	796

* Tidak bisa dipublikasikan, tetapi tergabung dalam nilai kelompok KLUI lain /Not available for publication, but included in ISIC group values where applicable

30001 : Mesin kantor dan akuntansi manual/ *Manual office, computing and accounting machineries*

30003 : Mesin kantor, komputasi dan akuntansi elektronik/ *Electronic office, computing and accounting machineries*

30004 : Mesin foto copy/ *Foto copy machineries*

31300 : Kabel listrik dan telepon/ *Electric and telephone cables*

32100 : Tabung dan katup elektronik dan komponen elektronik/ *Electronic valve and tube and other electronic component*

32200 : Alat Komunikasi/ *Communication equipments*

32300 : Radio, TV, alat-alat rekaman suara dan gambar, dan sejenisnya/ *Radio and TV reciver, sound and vidio recording and accosiates goods*

33121 : Peralatan pengukuran, pengatur dan penguian manual/ *Non electric instrument and appliance for measuring, navigating and testing*

Tabel 7. Ekspor Mesin Pengolahan Data Otomatis (PDO), Unit, Komponen dan Aksesori, Tahun 2004-2005

Deskripsi Komoditas/ Commodity Description	Ekspor (juta USD)	
	2004	2005
Mesin PDO analog atau hybrid	103.97	30.09
Mesin PDO digital	339.88	369.16
Laptop, palmtop, notebook, dan mesin PDO portable lainnya	8.38	6.37
Komputer non portable	16.53	3.21
Unit pengolahan (processing units) untuk komputer personal dan portable	1.12	0.19
Mesin PDO digital dan unit pengolahan lainnya	313.85	359.39
Unit Input atau Output	1,516.89	1,855.17
Printer	850.38	1,085.26
Monitor Komputer	4.63	4.80
Kamera digital, kamera video	602.53	693.97
Unit Input /Output lainnya	59.35	71.14
Unit Penyimpanan (storage)	181.04	309.10
Hard disk drive	25.27	33.64
Media rekaman suara dan video	34.02	34.62
Unit penyimpanan lainnya	121.75	240.84
Mesin dan unit pengolahan data lainnya	14.70	14.77
Komponen (parts) dan Aksesori dari mesin komputasi	994.97	641.78
Total	3,151.45	3,220.07

Tabel 8. Impor Mesin Pengolahan Data Otomatis (PDO), Unit, Komponen dan Aksesori, Tahun 2004-2005

Deskripsi Komoditas/ <i>Commodity Description</i>	Impor (juta USD)	
	2004	2005
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Komponen (parts) dan Aksesori dari mesin komputasi	994.97	641.78
Total	3,151.45	3,220.07

Some Remarks

- In line with the rapid growth of ICT activities in Indonesian economy, so data on ICT are needed to monitor, evaluate, and make a better plans for the benefit of our people.
- BPS has set up a new organizational unit so-called “Subdirektorat Statistik Telekomunikasi dan Teknologi Informasi” which is responsible for compiling ICT statistics.
- Support from all related government institutions, private companies, and other parties are needed.

Thank you