

2008 Global Event on Measuring the Information Society

Revision of core indicators A1-A12: infrastructure & access

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STAT/POL/BDT
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Core list of ICT indicators

Type	Basic core	Extended core	Total
ICT infrastructure and access	10	2	12
ICT access and usage by households and individuals	10	3	14
ICT access and usage by businesses	8	4	12
ICT sector	4	-	4
Total	32	9	42



Source: Partnership on Measuring ICT for Development

ITU World Telecommunication/ICT Indicators Meeting

- To regularly review indicators and definitions
- To identify new indicators reflecting new technologies and market trends
- To harmonize indicators internationally
- October 2006 & December 2007
- Revision to be finalized with ITU training manual

A1-A12 ICT infrastructure & access - current

Basic core

- A-1 Fixed telephone lines per 100 inhabitants
- A-2 Mobile cellular subscribers per 100 inhabitants
- A-3 Computers per 100 inhabitants
- A-4 Internet subscribers per 100 inhabitants
- A-5 Broadband Internet subscribers per 100 inhabitants
- A-6 International Internet bandwidth per inhabitant
- A-7 Percentage of population covered by mobile cellular telephony
- A-8 Internet access tariffs (20 hours per month), in \$US, and as a percentage of per capita income
- A-9 Mobile cellular tariffs (100 minutes of use per month), in \$US, and as a percentage of per capita income
- A-10 Percentage of localities with public Internet access centres

Extended core

- A-11 Radio sets per 100 inhabitants
- A-12 Television sets per 100 inhabitants

A2: Mobile cellular subscribers per 100 inhabitants

Old	New
<p>Mobile cellular subscribers refer to users of portable telephones subscribing to an automatic public mobile telephone service using cellular technology, which provides access to the PSTN. Users of both post-paid subscriptions and pre-paid accounts are included. *</p>	<p>Mobile cellular subscribers refer to users of portable telephones subscribing to an automatic public mobile telephone service using cellular technology, which provides access to the PSTN. Users of both post-paid subscriptions and pre-paid accounts are included. <u>This should also include subscribers to IMT-2000 (Third Generation, 3G).</u> *</p>

**Mobile cellular subscribers per 100 inhabitants is obtained by dividing the number of mobile cellular subscribers by the population and multiplying by 100.)*

A3: Computers per 100 inhabitants

Old	New
<p><i>Computers</i> measures the number of computers installed in a country. The statistic includes PCs, laptops, notebooks etc, but excludes terminals connected to mainframe and mini-computers that are primarily intended for shared use, and devices such as smart-phones and personal digital assistants (PDAs) that have only some, but not all, of the components of a PC (e.g. they may lack a full-sized keyboard, a large screen, an Internet connection, drives etc.).*</p>	<p>DELETE</p> <ul style="list-style-type: none"> ▪ Covered through HH5: Proportion of households with a computer ▪ Often based on estimates.

**Computers per 100 inhabitants is obtained by dividing the estimated number computers in use by the population and multiplying by 100.*

A3: Total (fixed) Internet subscribers per 100 inhabitants

Old	New
<p>An Internet subscriber is someone who pays for access to the public Internet (a TCP/IP connection). The statistic is measured irrespective of the type or speed of access, the type of device used to access the Internet, or the method of payment.</p>	<p><u>Refers to the total number of Internet subscribers with fixed access, which includes dial-up and total fixed broadband subscribers: cable modem, DSL Internet subscribers, other fixed broadband and leased line Internet subscribers.</u></p>

**Total fixed Internet subscribers per 100 inhabitants is obtained by dividing the number of Internet subscribers by the population and multiplying by 100.*

A4: Total (fixed) broadband Internet subscribers per 100 inhabitants

Old	New
<p>A Broadband Internet subscriber is someone who pays for high-speed access to the public Internet (a TCP/IP connection). Highspeed access is defined as being equal to, or greater than 256 kbit/s, as the sum of the capacity in both directions. The statistic is measured irrespective of the type of access, or the type of device used to access the Internet, or the method of payment.</p>	<p>A Broadband Internet subscriber is someone who pays for high-speed access to the public Internet (a TCP/IP connection). Highspeed access is defined as being equal to, or greater than, 256 kbit/s, as the sum of the capacity in both directions. The statistic is measured irrespective of the method of payment. <u>It excludes subscribers with access to data communications (including the Internet) via mobile cellular networks.</u></p>

**Broadband Internet subscribers per 100 inhabitants is obtained by dividing the number of Broadband Internet subscribers by the population and multiplying by 100.*

A5: Total mobile broadband subscribers per 100 inhabitants

Old	New
---	<p>Number of subscribers to mobile cellular networks with access to data communications (e.g. the Internet) at broadband speeds (here defined as greater than or equal to 256 kbit/s in one or both directions)* such as WCDMA, HSDPA, CDMA2000 1xEV-DO, CDMA 200 1xEV-DV etc. These services are typically referred to as 3G or 3.5G and include:</p> <ul style="list-style-type: none"> -<i>Wideband CDMA (W-CDMA)</i>, an IMT-2000 3G mobile network technology, based on CDMA that presently delivers packet-switched data transmission speeds up to 384 kbit/s and up to 2 Mbit/s when fully implemented. Known as <i>Universal Mobile Telecommunications System (UMTS)</i> in Europe. -<i>High-speed Downlink Packet Access (HSDPA)</i>, an upgrade to W-CDMA to allow downlink data transmission at speeds of typically 8-10 Mbit/s. It is complemented by High-Speed Uplink Packet Access (HSUPA), which offers uplink speeds of around 5 Mbit/s. -<i>CDMA2000 1xEV-DO (Evolution, Data Optimised)</i>, an IMT-2000 3G mobile network technology, based on CDMA that delivers packet-switched data transmission speeds of up to 4.9 Mbit/s.

A6: International Internet bandwidth per inhabitant (bits/inhabitant)

Old	New
<p>International Internet bandwidth refers to the capacity which backbone operators provision to carry Internet traffic measured in bits per second. International Internet bandwidth per inhabitant is obtained by dividing the amount of bandwidth by the population.</p>	<p>International Internet bandwidth refers to the capacity which backbone operators provision to carry Internet traffic measured in bits per second. International Internet bandwidth per inhabitant is obtained by dividing the amount of bandwidth (in bits) by the population.</p>

A8: Broadband Internet access tariffs in US\$, and as a percentage of per capita income

Old	New
<p>The <i>Internet access tariff</i> includes the tariff components of monthly line rental, line usage charge and Internet access charge, plus any tax that may be levied. The tariff chosen for a particular country would be the package for 20 hours per month that is the cheapest, that is widely available (or, in the case of regional service providers, is available in the capital city) and is available to the general public without restriction. The price comparison is expressed in a commonly used currency (such as US\$).*</p>	<ul style="list-style-type: none"> ▪ Replace dial-up with broadband tariffs <ul style="list-style-type: none"> ➢ Replacing dial-up in developed countries ➢ Trend toward broadband in developed countries (cybercafés, schools) <ul style="list-style-type: none"> ➢ Importance of broadband for information society ➢ Dial-up tariffs difficult to collect ▪ Broadband tariffs take into consideration prices for lower speed access (typically 256-1'024kbit/s) and higher speed access. The lowest sample cost (US\$ per 100kbit/s) is chosen to show the most cost-effective offer.

**As a percentage of per capita income involves dividing the Internet access tariff by the average monthly gross national income per capita of the country.*

A9: Mobile cellular tariffs (OECD low-user basket), in US\$, and as a % of per capita income

Old	New
<p>The Mobile cellular tariff includes the tariff components of monthly service rental (if relevant), 50 minutes of local peak time calling and 50 minutes of local off-peak calling, plus tax. Differences in the distance of calls, which may be applicable in some countries, are not taken into account, nor are international calls or SMS messages. The possible one-time charge for connection is not taken into account, except where this is bundled into the costs of a pre-paid account. Countries should calculate the tariff either on a post-paid or a prepaid service, whichever one is more popularly used. If more than 50% of the mobile cellular subscribers use pre-paid, then the tariff should also be based on the pre-paid service, and vice versa. The price comparison is expressed in a commonly used currency (such as US\$), which could be converted either at the average an exchange rate, or at purchasing power parity (PPP) rates. The indicator should be compared, as far as possible, for the same date between countries.</p>	<p>OECD low-users basket: standard basket of mobile monthly usage for 25 outgoing call per month (on-net, off-net, and to a fixed line) in predetermined ratios plus 30 SMS messages.</p>

**As a percentage of per capita income involves dividing the mobile cellular tariff by the average monthly gross national income per capita of the country.*

A11: Radio sets per 100 inhabitants

Old	New
<p>A radio set is a device capable of receiving broadcast radio signals, using popular frequencies, such as FM, AM, LW and SW. A radio set may be a standalone device, or it may be integrated into another device, such as a Walkman, a car, or an alarm clock.</p>	<p>DELETE</p> <ul style="list-style-type: none"> ▪ Covered through HH1: Proportion of households with a radio

**Radio sets per 100 inhabitants is obtained by dividing the number of radio sets in use by the population and multiplying by 100.)*

A12: Television set per 100 inhabitants

Old	New
<p>A television set is a device capable of receiving broadcast television signals, using popular access means such as over-the-air, cable and satellite. A television set may be a standalone device, or it may be integrated into another device, such as a computer or a mobile phone. It may be useful to distinguish between digital and analogue signal delivery and between TV sets receiving only a limited number of signals (usually over-the-air) and those that have multiple channels available (e.g. by satellite or cable).</p>	<p>DELETE</p> <ul style="list-style-type: none"> ▪ Covered through HH2: Proportion of households with a TV

**Television sets per 100 inhabitants is obtained by dividing the number of sets in use by the population and multiplying by 100.*

A1-A12 ICT infrastructure & access – Proposed new

- A-1 Fixed telephone lines per 100 inhabitants
- A-2 Mobile cellular subscribers per 100 inhabitants
- A-3 Total fixed Internet subscribers per 100 inhabitants
- A-4 Total fixed broadband Internet subscribers per 100 inhabitants
- A-5 Total mobile broadband subscribers per 100 inhabitants
- A-6 International Internet bandwidth per inhabitant (bits/inhabitant)
- A-7 Percentage of population covered by mobile cellular telephony
- A-8 Broadband Internet access tariffs in \$US and as a percentage of per capita income
- A-9 Mobile cellular tariffs (OECD low-user basket) in \$US and as a percentage of per capita income
- A-10 Percentage of localities with public Internet access centres

Thank you

www.itu.int/ITU-D/ict/partnership/index.html

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MEASURING ICT
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