

# COVERING NOTE

## Telecommunication Development Bureau (ITU-D)

Geneva, 16 March 2009

**Subject:    Corrigendum to:**

**MEASURING THE INFORMATION SOCIETY –  
THE ICT DEVELOPMENT INDEX, 2009 EDITION**

Replace pages 1, 91 and 92 by the attached pages.



## Chapter 1

# Introduction

During the past year, information and communication technologies (ICTs) continued to spread throughout the world, and more and more people have access to the Internet and its wealth of information and applications. Access to the Internet via mobile cellular networks has grown rapidly with the increasing availability of IMT-2000/3G networks and enabled devices, including mobile handsets and data cards that allow users to access the Internet over the mobile cellular network using their computers. Internet access speeds are also increasing, with fixed broadband replacing dial-up in most developed countries, accompanied by a decline in tariffs.

In the developing world, mobile phones have revolutionized telecommunication and have reached an estimated average 49.5 per cent penetration rate at the end of 2008 – from close to zero only ten years ago. This is not only faster than any other technology in the past, but the mobile phone is also the single most widespread ICT today. The number of Internet users, on the other hand, has grown at a much slower rate, in particular in the developing world, where at the end of 2007 only 13 out of 100 inhabitants used the Internet. Fixed Internet access in developing countries is still limited, and, where available, often slow and/or expensive. High-speed (broadband) connections are rare and mobile broadband, while increasing steeply in high-income countries, is still insignificant in most developing countries.<sup>1</sup>

In light of such developments, the question remains as to whether the global digital divide is widening or narrowing, what the contributing factors are, and what progress has been made by individual countries to close the digital divide.

This Report will address these issues by providing an analysis of global ICT developments based on quantitative indicators.

Continuous monitoring of ICT trends and developments is crucial to policy makers, ICT service providers and market analysts. Given the potential impact of ICT use on social and economic development, countries strive towards making the benefits of ICT available to all people. But evidence-based policy making requires measurable facts and comparable indicators. Comparing individual countries' ICT achievements with those of others is an important benchmark to assess regional and global competitiveness and provides incentives to deploy policies that enhance ICT development at the national level.

Therefore, calls for benchmarking information society developments have been made at the international level during the World Summit on the Information Society (WSIS).<sup>2</sup> In its 2003 outcome document (Geneva Plan of Action), members request a realistic international performance evaluation and benchmarking through comparable statistical indicators, and the creation of a composite ICT development index. This was reiterated in the Tunis Agenda (paragraphs 113-119), which calls for periodic evaluation through indicators and benchmarking, and an assessment of the magnitude of the digital divide. Compared to individual indicators, composite indices allow grouping several key performance indicators into one single figure that captures a variety of information society developments and provides a more comprehensive picture of where countries stand in their evolution towards an information society.

One of the objectives of this publication is to respond to those calls and provide policy makers with a useful tool to benchmark and assess their information society developments, as well as to monitor progress that has been made globally to close the digital divide.

In conjunction with the WSIS process, a number of ICT composite indices have been published, including by the



## Annex 4: Statistical tables of indicators used to compute the IDI

## Access indicators

		Fixed telephone lines per 100 inhab.		Mobile cellular subscriptions per 100 inhab.		International Internet bandwidth per Internet user(bit/s)		Proportion of households with computer		Proportion of households with Internet	
		2002	2007	2002	2007	2002	2007	2002	2007	2002	2007
		1	Albania	7.2	9.0	27.7	72.1	1'000	1'164	2.0	9.5
2	Algeria	6.2	9.1	1.4	81.4	313	857	2.1	8.3	0.3	6.8
3	Argentina	20.5	24.0	17.5	102.2	1'336	8'943	27.0	36.4	14.0	27.5
4	Armenia	17.8	20.9	2.3	62.5	133	2'712	1.2	41.2	1.0	6.1
5	Australia	53.3	47.1	64.9	102.5	928	8'035	61.0	73.0	46.0	64.0
6	Austria	47.8	40.8	82.9	18.6	11'996	30'116	49.2	71.0	33.0	60.0
7	Azerbaijan	11.2	14.8	9.6	53.4	7	6'475	3.7	10.1	0.2	9.3
8	Bahrain	25.2	25.9	55.9	148.3	1'588	7'660	35.0	50.7	19.0	34.1
9	Bangladesh	0.5	0.8	0.8	21.7	211	1'284	0.8	1.9	0.1	1.3
10	Belarus	29.9	37.9	4.7	71.8	89	427	3.0	24.9	1.0	12.1
11	Belgium	47.6	44.6	78.2	102.7	17'662	37'831	40.9	67.0	43.0	60.0
12	Benin	0.8	1.2	2.9	21.0	42	1'033	1.2	8.0	0.6	3.6
13	Bhutan	1.0	3.4	-	17.2	200	1'125	5.0	13.7	-	6.1
14	Bolivia	6.8	7.1	11.8	34.2	169	398	7.1	18.0	1.8	5.9
15	Bosnia	23.0	27.1	19.1	62.3	340	1'896	5.2	35.6	2.7	25.8
16	Botswana	8.4	7.3	18.8	61.2	233	810	0.8	4.5	0.1	0.1
17	Brazil	21.7	20.5	19.5	63.1	570	2'955	14.2	20.8	10.3	15.4
18	Brunei Darussalam	23.3	19.6	44.0	89.5	1'948	2'954	45.9	66.6	38.9	61.7
19	Bulgaria	36.4	30.1	32.9	129.6	110	15'878	5.1	23.3	3.4	19.0
20	Burkina Faso	0.5	0.7	0.9	10.9	320	2'170	2.0	3.0	0.3	1.8
21	Cambodia	0.3	0.3	2.9	17.9	400	3'571	0.5	4.1	0.1	2.4
22	Cameroon	0.7	1.0	4.5	24.5	150	371	0.5	10.1	-	5.2
23	Canada	65.9	55.5	37.9	61.7	4'628	22'250	64.0	79.1	54.5	72.1
24	Cape Verde	14.9	13.5	9.1	27.9	188	649	4.6	11.6	2.3	11.4
25	Chad	0.1	0.1	0.4	8.5	34	61	0.3	2.0	0.1	0.1
26	Chile	22.0	20.7	39.6	83.7	659	13'135	20.5	36.4	11.0	22.1
27	China	16.6	27.5	16.0	41.2	159	1'735	10.2	39.1	5.0	16.4
28	Colombia	17.8	17.2	10.6	73.5	349	3'528	10.0	27.4	5.6	...
29	Comoros	1.4	2.6	-	4.8	80	317	0.8	4.3	-	1.0
30	Congo	0.6	0.6	6.1	34.2	26	10	1.5	5.0	-	1.4
31	Costa Rica	25.3	32.2	12.3	33.8	623	2'440	20.0	31.6	7.3	11.8
32	Côte d'Ivoire	1.9	1.4	5.9	36.6	220	689	2.9	6.2	0.6	3.6
33	Croatia	40.5	40.5	51.9	110.5	228	7'553	18.8	34.7	16.7	29.5
34	Cuba	6.0	9.3	0.2	1.8	481	162	0.5	2.3	-	1.8
35	Cyprus	53.0	44.9	51.8	115.6	739	4'218	36.0	53.0	24.0	39.0
36	Czech Republic	35.9	23.6	84.0	124.9	9'108	14'649	27.8	43.0	13.5	35.0
37	D.R. Congo	-	-	1.1	10.5	100	43	0.2	0.3	-	0.2
38	Denmark	68.8	51.9	83.2	114.5	31'721	42'752	72.2	83.0	56.0	78.0
39	Dominican Rep.	10.7	9.3	20.0	56.5	83	894	5.5	12.5	2.8	5.7
40	Ecuador	11.1	13.5	12.3	75.6	377	2'458	17.5	18.0	2.0	6.8
41	Egypt	11.1	14.9	6.4	39.8	339	1'023	3.0	16.1	1.4	9.1
42	El Salvador	10.2	15.8	13.6	89.5	199	157	5.2	8.6	2.3	3.6
43	Eritrea	0.9	0.8	-	1.7	222	100	0.2	0.3	-	0.2
44	Estonia	35.2	37.1	65.3	148.4	985	18'722	21.8	57.0	13.9	53.0
45	Ethiopia	0.5	1.1	0.1	1.5	200	842	0.1	0.2	0.1	0.1
46	Fiji	11.8	14.5	10.9	63.2	160	1'379	8.9	18.2	1.3	11.5
47	Finland	52.4	33.0	86.8	115.2	5'140	21'847	54.5	74.0	44.0	69.0
48	France	57.1	56.5	64.6	89.8	11'076	46'086	36.6	62.0	23.0	49.0
49	Gabon	2.4	2.0	21.2	87.9	320	2'439	0.8	4.3	0.6	3.6
50	Gambia	2.7	4.5	7.2	46.8	82	618	0.3	4.0	-	2.0
51	Georgia	13.9	12.7	10.9	59.2	245	9'103	-	12.6	-	2.4
52	Germany	65.1	65.1	71.7	117.6	6'448	35'487	61.0	79.0	46.0	71.0
53	Ghana	1.3	1.6	1.9	32.4	71	565	0.3	5.1	0.2	1.8
54	Greece	57.0	53.9	84.3	110.3	1'476	13'805	25.3	40.0	12.0	25.0
55	Guatemala	7.2	11.0	13.5	76.0	1'625	1'429	5.9	13.6	0.6	1.8
56	Guinea-Bissau	0.8	0.3	-	17.5	5	45	0.3	3.6	-	1.0
57	Haiti	1.6	1.1	1.7	26.1	746	155	0.3	4.0	-	1.8
58	Honduras	4.8	11.6	4.9	58.9	101	4'081	4.2	10.1	-	3.3
59	Hong Kong, China	56.3	57.2	94.0	149.2	3'863	23'571	62.1	74.2	52.5	70.1
60	Hungary	36.1	32.4	67.7	110.0	1'477	9'203	26.0	54.0	8.0	38.0
61	Iceland	65.6	62.0	90.9	108.9	301	8'121	83.0	89.0	77.0	84.0
62	India	3.9	3.4	1.2	20.0	113	441	0.3	3.7	0.2	3.0
63	Indonesia	3.6	7.7	5.5	35.3	127	923	2.5	8.1	1.0	6.9
64	Iran (I.R.)	19.1	33.5	3.4	41.8	174	473	5.5	13.0	2.8	8.6
65	Ireland	50.2	49.1	76.3	115.9	13'254	27'122	41.1	65.0	32.8	57.0
66	Israel	47.4	44.4	99.3	128.5	1'260	7'190	53.8	61.6	24.4	44.7
67	Italy	46.9	49.0	93.6	153.1	4'173	27'339	39.9	53.0	34.0	43.0
68	Jamaica	16.6	13.5	47.6	98.6	3'333	34'000	13.0	17.3	7.7	12.7
69	Japan	47.7	40.0	63.6	83.9	511	5'415	71.7	85.0	48.8	62.1
70	Jordan	12.8	9.9	23.2	80.5	293	831	16.4	25.1	5.0	10.5
71	Kazakhstan	14.0	21.0	6.9	79.9	192	1'052	3.4	15.6	0.5	13.9
72	Kenya	1.0	0.7	3.7	30.2	65	112	1.0	5.5	0.7	2.2
73	Korea (Rep.)	54.5	46.4	68.4	90.2	613	1'353	78.6	80.0	70.2	94.0
74	Kuwait	19.8	18.6	50.3	97.3	308	2'577	29.0	34.1	24.0	29.1
75	Kyrgyzstan	7.8	9.1	1.0	40.8	59	796	2.8	8.6	0.6	3.6
76	Lao P.D.R.	1.1	1.6	1.0	25.2	100	1'880	-	6.7	-	1.8
77	Latvia	29.9	28.3	39.2	97.4	825	6'428	15.0	49.0	8.5	51.0

		Fixed telephone lines per 100 inhab.		Mobile cellular subscriptions per 100 inhab.		International Internet bandwidth per Internet user(bit/s)		Proportion of households with computer		Proportion of households with Internet	
		2002	2007	2002	2007	2002	2007	2002	2007	2002	2007
		78	Lebanon	19.6	17.8	22.3	30.7	150	289	18.8	40.0
79	Lesotho	1.6	2.9	7.7	22.7	49	171	1.0	6.8	-	0.9
80	Libya	13.1	15.7	1.3	73.1	48	1'064	2.9	6.3	0.8	4.3
81	Lithuania	27.0	23.6	47.5	145.2	526	9'461	12.0	46.0	4.1	40.3
82	Luxembourg	55.6	53.2	105.8	129.5	8'212	9'617'645	52.6	80.0	40.0	75.0
83	Macao, China	39.0	37.0	61.2	165.1	1'878	18'718	66.0	85.5	56.0	77.8
84	Madagascar	0.4	0.7	1.0	11.3	109	1'240	6.9	12.8	-	1.0
85	Malawi	0.6	1.3	0.7	7.6	98	480	0.1	4.0	-	1.4
86	Malaysia	19.5	16.4	37.8	87.9	168	1'791	24.0	35.9	10.5	20.0
87	Maldives	9.4	10.8	13.7	102.6	467	37'576	19.6	28.9	3.0	9.0
88	Mali	0.5	0.7	0.4	20.5	240	2'130	1.0	1.0	-	0.5
89	Malta	52.3	56.6	69.9	91.4	1'359	12'817	42.9	63.0	31.3	54.0
90	Mauritania	1.1	1.3	8.8	41.6	950	4'889	1.0	2.0	1.0	1.0
91	Mauritius	27.1	28.6	28.8	73.6	272	840	16.2	27.8	11.1	19.1
92	Mexico	14.6	18.5	25.2	62.5	426	784	15.2	22.1	7.5	12.0
93	Moldova	16.9	28.5	8.0	49.6	227	5'061	0.8	23.0	-	16.0
94	Mongolia	5.0	6.1	8.5	34.4	340	938	3.0	12.5	1.9	7.7
95	Morocco	3.7	7.7	20.6	64.2	443	3'808	8.9	17.2	0.4	7.0
96	Mozambique	0.5	0.3	1.4	15.4	230	360	0.2	3.8	-	0.9
97	Myanmar	0.7	1.5	0.1	0.6	23'723	2'350	0.4	1.8	-	1.8
98	Namibia	6.2	6.7	7.7	38.6	170	554	9.0	11.2	2.0	3.3
99	Nepal	1.3	2.5	0.1	11.6	247	350	0.4	2.8	-	1.0
100	Netherlands	50.0	44.7	75.3	117.5	17'064	92'832	69.0	86.0	58.0	83.0
101	New Zealand	45.3	41.8	62.8	101.7	984	6'569	52.0	75.7	43.0	65.9
102	Nicaragua	3.3	5.0	4.6	37.9	67	4'697	2.2	7.8	0.6	3.6
103	Niger	0.2	0.2	0.5	6.3	133	2'826	-	1.0	-	0.2
104	Nigeria	0.6	1.1	1.3	27.3	171	69	0.5	5.1	0.3	3.6
105	Norway	50.9	42.4	83.2	110.5	6'866	31'726	70.0	82.0	58.0	78.0
106	Oman	9.1	10.3	18.6	96.3	211	1'088	23.4	29.5	13.1	17.0
107	Pakistan	2.5	2.9	1.1	38.4	103	404	0.8	8.1	-	1.1
108	Palestine	9.0	9.3	9.5	27.5	190	3'376	23.5	32.5	5.7	15.9
109	Panama	12.6	14.8	17.2	90.1	2'382	71'616	9.8	16.9	5.8	8.9
110	Papua New Guinea	1.1	1.0	0.3	4.7	80	104	1.5	3.0	1.0	2.0
111	Paraguay	4.8	6.4	29.0	76.6	1'000	1'886	5.4	10.4	1.7	4.0
112	Peru	6.2	9.6	8.6	55.3	565	9'877	4.3	13.8	0.8	5.6
113	Philippines	4.2	4.5	19.6	58.9	254	1'887	5.3	18.3	4.9	12.3
114	Poland	30.7	27.1	36.0	108.7	779	6'251	23.1	54.0	11.0	41.0
115	Portugal	42.1	39.5	83.9	126.6	2'048	11'960	27.0	48.3	15.1	39.6
116	Qatar	25.7	28.2	38.9	150.4	2'214	6'624	29.0	34.2	18.8	33.8
117	Romania	19.2	19.9	23.3	106.7	1'350	12'335	6.0	34.0	3.9	22.0
118	Russia	24.4	31.0	12.1	114.6	886	2'712	7.0	16.2	3.5	9.5
119	Rwanda	0.3	0.2	1.0	6.5	411	780	0.1	0.3	0.1	0.1
120	Saudi Arabia	15.1	16.2	22.1	114.7	243	1'932	18.8	43.2	8.5	35.6
121	Senegal	2.1	2.2	5.1	29.3	752	2'079	1.7	7.8	0.5	1.0
122	Singapore	46.3	42.0	79.6	133.5	2'857	34'655	68.4	79.0	59.4	74.0
123	Slovak Republic	26.0	21.4	54.1	112.6	3'775	9'932	24.6	55.0	12.6	46.0
124	Slovenia	41.1	42.8	84.8	96.4	1'943	12'784	55.0	66.0	37.0	58.0
125	South Africa	10.4	9.6	29.4	87.1	182	852	9.9	14.8	1.9	4.8
126	Spain	42.4	45.9	80.6	109.4	5'594	21'456	36.1	60.4	17.4	45.0
127	Sri Lanka	4.4	14.2	4.6	41.4	463	3'072	1.3	7.8	-	4.1
128	Sudan	2.0	0.9	0.6	21.3	150	3'800	0.8	4.3	0.4	1.0
129	Swaziland	3.4	4.8	6.6	33.3	51	282	6.1	12.8	5.0	6.0
130	Sweden	62.5	60.4	89.0	113.7	14'962	62'484	75.0	83.0	66.0	79.0
131	Switzerland	74.7	65.9	79.6	109.7	14'726	38'541	65.4	78.1	61.9	77.5
132	Syria	11.9	17.3	2.2	31.3	44	304	20.0	35.0	20.0	30.0
133	Taiwan, China	59.2	62.3	108.3	106.1	1'380	12'632	56.8	67.1	45.9	61.6
134	Tajikistan	3.8	5.1	0.2	34.9	523	516	-	1.0	-	0.1
135	Tanzania	0.5	0.4	1.7	20.6	200	250	1.7	2.3	0.3	0.6
136	TFYR Macedonia	27.7	22.7	18.1	95.5	143	61	23.8	25.0	5.4	15.5
137	Thailand	10.5	11.0	16.3	123.8	211	1'645	8.4	27.2	4.0	7.3
138	Togo	0.9	1.5	3.0	18.1	60	84	0.8	3.5	0.5	1.0
139	Trinidad & Tobago	24.6	23.1	20.3	113.2	696	4'229	17.0	43.6	15.5	18.1
140	Tunisia	11.7	12.3	5.9	75.9	301	1'800	4.5	9.6	1.4	2.9
141	Turkey	26.9	24.3	33.2	82.8	145	8'390	8.0	28.5	5.0	18.9
142	Turkmenistan	8.1	9.2	0.2	7.0	571	3'414	-	1.0	-	0.5
143	Uganda	0.2	0.5	1.5	13.6	77	306	0.3	5.1	0.1	-
144	Ukraine	22.6	27.8	7.7	119.6	349	956	3.0	16.2	0.3	6.8
145	United Arab Emirates	29.1	31.6	64.6	176.5	1'067	5'380	33.0	43.3	30.0	40.4
146	United Kingdom	58.8	55.4	83.3	118.5	9'662	55'281	57.9	75.0	50.0	67.0
147	United States	65.3	53.4	48.9	83.5	2'208	15'341	59.0	70.2	52.0	61.7
148	Uruguay	27.9	28.9	15.1	90.0	987	3'102	17.6	27.0	13.6	13.5
149	Uzbekistan	6.6	6.7	0.7	21.5	65	199	0.1	2.4	-	0.8
150	Venezuela	11.2	18.4	25.8	86.1	555	3'016	5.1	11.9	2.0	3.0
151	Viet Nam	4.9	32.7	2.4	27.2	95	704	2.6	10.1	0.6	5.0
152	Yemen	2.8	4.7	2.6	15.6	60	1'969	0.2	2.6	0.2	2.0
153	Zambia	0.8	0.8	1.3	22.1	98	74	0.8	4.3	0.3	1.8
154	Zimbabwe	2.3	2.6	2.7	9.2	60	42	1.7	7.8	0.3	1.8

Note: For definition, see Annex 1.

Source: ITU.