



BACKGROUND PAPER 2 (PHASE I)

Access, Affordability, and Alternatives: Modern Infrastructure Services in Africa

ANNEX 1—CROSS-COUNTRY TABLES

Sudeshna Banerjee, Quentin Wodon, Amadou Diallo, Taras Pushak, Helal Uddin, Clarence Tsimpo, and Vivien Foster

FEBRUARY 2008

Africa's Infrastructure | A Time for Transformation

© 2009 The International Bank for Reconstruction and Development / The World Bank
1818 H Street, NW
Washington, DC 20433 USA
Telephone: 202-473-1000
Internet: www.worldbank.org
E-mail: feedback@worldbank.org

All rights reserved

A publication of the World Bank.

The World Bank
1818 H Street, NW
Washington, DC 20433 USA

The findings, interpretations, and conclusions expressed herein are those of the author(s) and do not necessarily reflect the views of the Executive Directors of the International Bank for Reconstruction and Development / The World Bank or the governments they represent.

The World Bank does not guarantee the accuracy of the data included in this work. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of The World Bank concerning the legal status of any territory or the endorsement or acceptance of such boundaries.

Rights and permissions

The material in this publication is copyrighted. Copying and/or transmitting portions or all of this work without permission may be a violation of applicable law. The International Bank for Reconstruction and Development / The World Bank encourages dissemination of its work and will normally grant permission to reproduce portions of the work promptly.

For permission to photocopy or reprint any part of this work, please send a request with complete information to the Copyright Clearance Center Inc., 222 Rosewood Drive, Danvers, MA 01923 USA; telephone: 978-750-8400; fax: 978-750-4470; Internet: www.copyright.com.

All other queries on rights and licenses, including subsidiary rights, should be addressed to the Office of the Publisher, The World Bank, 1818 H Street, NW, Washington, DC 20433 USA; fax: 202-522-2422; e-mail: pubrights@worldbank.org.

About AICD



This study is a product of the Africa Infrastructure Country Diagnostic (AICD), a project designed to expand the world's knowledge of physical infrastructure in Africa.

AICD will provide a baseline against which future improvements in infrastructure services can be measured, making it possible to monitor the results achieved from donor support. It should also provide a better empirical foundation for prioritizing investments and designing policy reforms in Africa's infrastructure sectors.



AICD is based on an unprecedented effort to collect detailed economic and technical data on African infrastructure. The project has produced a series of reports (such as this one) on public expenditure, spending needs, and sector performance in each of the main infrastructure sectors—energy, information and communication technologies, irrigation, transport, and water and sanitation. *Africa's Infrastructure—A Time for Transformation*, published by the World Bank in November 2009, synthesizes the most significant findings of those reports.

AICD was commissioned by the Infrastructure Consortium for Africa after the 2005 G-8 summit at Gleneagles, which recognized the importance of scaling up donor finance for infrastructure in support of Africa's development.



The first phase of AICD focused on 24 countries that together account for 85 percent of the gross domestic product, population, and infrastructure aid flows of Sub-Saharan Africa. The countries are: Benin, Burkina Faso, Cape Verde, Cameroon, Chad, Côte d'Ivoire, the Democratic Republic of Congo, Ethiopia, Ghana, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Namibia, Niger, Nigeria, Rwanda, Senegal, South Africa, Sudan, Tanzania, Uganda, and Zambia. Under a second phase of the project, coverage is expanding to include as many other African countries as possible.



Consistent with the genesis of the project, the main focus is on the 48 countries south of the Sahara that face the most severe infrastructure challenges. Some components of the study also cover North African countries so as to provide a broader point of reference. Unless otherwise stated,



therefore, the term “Africa” will be used throughout this report as a shorthand for “Sub-Saharan Africa.”



The World Bank is implementing AICD with the guidance of a steering committee that represents the African Union, the New Partnership for Africa’s Development (NEPAD), Africa’s regional economic communities, the African Development Bank, the Development Bank of Southern Africa, and major infrastructure donors.



Financing for AICD is provided by a multidonor trust fund to which the main contributors are the U.K.’s Department for International Development, the Public Private Infrastructure Advisory Facility, Agence Française de Développement, the European Commission, and Germany’s KfW Entwicklungsbank. The Sub-Saharan Africa Transport Policy Program and the Water and Sanitation Program provided technical support on data collection and analysis pertaining to their respective sectors. A group of distinguished peer reviewers from policy-making and academic circles in Africa and beyond reviewed all of the major outputs of the study to ensure the technical quality of the work.



The data underlying AICD’s reports, as well as the reports themselves, are available to the public through an interactive Web site, www.infrastructureafrica.org, that allows users to download customized data reports and perform various simulations. Inquiries concerning the availability of data sets should be directed to the editors at the World Bank in Washington, DC.



Annex 1 Cross-country tables

Part I Methodological issues

Part II Access to modern infrastructure services

Part III Expenditure on infrastructure services

Part IV Access to infrastructure alternatives

Note:

— = not available

n.a. = not applicable

ANNEX 1 CROSS-COUNTRY TABLES

Part I Methodological issues

Table A1.1.1 Overview of DHS, MICS and expenditure surveys included

Table A1.1.2 Sectoral coverage of expenditure surveys

Table A1.1.3 Standardization of socioeconomic and housing characteristics

Table A1.1.4 Overview of socioeconomic and housing quality characteristics

Table A1.1.5 Methodology for estimation of trends in access to infrastructure services

Table A1.1.6 Comparison of AICD and JMP data on improved access

Table A1.1.7 Population growth and average household size

Table A1.1.8 Methodology for calculating year of universal coverage of infrastructure services

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.1.1 Surveys from which data were drawn to produce the tables in this annex

Country	Income group	Urbanization level	Subregion	DHS Surveys	MICS Surveys	Expenditure Surveys
1 Angola	LMI	3	S			2000
2 Benin	LI	2	W	1996, 2001		2002
3 Burkina Faso	LI	1	W	1993, 1999, 2003		2003
4 Burundi	LI	1	E			1998
5 Cameroon	LMI	3	C	1991, 1998, 2004		2001
6 C. African Rep	LI	2	C	1995		
7 Cape Verde	LMI	3	W			2001
8 Chad	LI	1	C	1997, 2004		2004
9 Comoros	LI	2	S	1996		
10 Congo, Dem Rep	LI	2	C		1995,2001	2005
11 Congo, Rep	LMI	3	C	2005		2005
12 Côte d'Ivoire	LI	3	W	1994, 1999		2002
13 Ethiopia	LI	1	E	2000, 2005		2000
14 Gabon	UMI	3	C	2000		2005
15 Ghana	LI	3	W	1993, 1998, 2003		1998/99
16 Guinea	LI	2	W	1999, 2005		
17 Guinea-Bissau	LI	2	W			2002
18 Kenya	LI	1	E	1993, 1998, 2003		1997
19 Lesotho	LMI	1	S	2005	2000	
20 Madagascar	LI	1	S	1992, 1997, 2004		2001
21 Malawi	LI	1	S	1992, 2000, 2004		2003
22 Mali	LI	1	W	1996, 2001		
23 Mauritania	LI	3	W	2001		2000
24 Morocco	LMI	3	N			2003
25 Mozambique	LI	2	S	1997, 2003		2003
26 Namibia	LMI	2	S	1992, 2000		
27 Niger	LI	1	W	1992, 1998		2005
28 Nigeria	LI	3	W	1990, 1999, 2003		2003
29 Rwanda	LI	1	E	1992, 2000, 2005		1998
30 Sao Tome and Principe	LI	3	W			2000
31 Senegal	LI	3	W	1993, 1997, 2005		2001
32 Sierra Leone	LI	2	W			2003
33 South Africa	UMI	3	S	1998		2000
34 Sudan	LI	2	E		2000	
35 Tanzania	LI	1	E	1992, 1999, 2004		2000
36 Togo	LI	2	W	1998		
37 Uganda	LI	1	E	1995, 2001		2002
38 Zambia	LI	2	S	1992, 1996, 2002		2002
39 Zimbabwe	LI	2	S	1994, 1999		
Total				63	4	30

Note: LI: Low Income, LMI: Low Middle Income, UMI: Upper Middle Income (Source: WDI, 2007)

LU: Low (0-30); MU: Medium (30-40); HU: High (More than 40)

C: Central Africa; E: East Africa; N: North Africa; S: South Africa; W: West Africa

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.1.2 Sectoral coverage of expenditure surveys

	Country	Type and year of survey	Sample size	Lighting fuel	Cooking fuel	Water supply	Sanitation	Landline	Cell phone	Transport
1	Angola	Integrated Expenditure Survey 2000	10,116	Yes	Yes	Yes	No	No	No	No
2	Benin	Core Welfare Indicators Questionnaire 2002	5,350	Yes	Yes	Yes	Yes	No	No	No
3	Burkina Faso	Core Welfare Indicators Questionnaire 2003	8,500	Yes	Yes	Yes	Yes	Yes	No	Yes
4	Burundi	Priority Survey 1998	6,668	Yes	Yes	Yes	No	No	No	Yes
5	Chad	Enquête sur la consommation et le secteur informel au Tchad, 2002	10,992	Yes	Yes	Yes	Yes	Yes	Yes	Yes
6	Cameroon	Enquête Camerounaise aupres des menages II 2001	4,584	Yes	Yes	Yes	Yes	Yes	Yes	Yes
7	Cape Verde	Integrated Expenditure Survey 2001		Yes	Yes	Yes	Yes	Yes	Yes	Yes
8	Congo, Dem Rep	Integrated Expenditure Survey 2005	10,801	Yes	Yes	Yes	Yes	Yes	Yes	Yes
9	Congo, Rep	Enquête Congolaise aupres des menages pour l'évaluation de la pauvreté, 2005	12,097	Yes	Yes	Yes	Yes	Yes	No	Yes
10	Côte d'Ivoire	Integrated Expenditure Survey 2002	5,002	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11	Ethiopia	Welfare Monitoring Survey 2000	16,672	Yes	Yes	Yes	Yes	No	No	Yes
12	Gabon	Core Welfare Indicators Questionnaire 2005	7,902	Yes	Yes	Yes	Yes	No	Yes	Yes
13	Ghana	Ghana Living Standards Survey 1998/99	5,991	Yes	Yes	Yes	Yes	No	No	Yes
14	Guinea-Bissau	Core Welfare Indicators Questionnaire 2002	3,216	Yes	Yes	Yes	Yes	No	No	Yes
15	Kenya	Welfare Monitoring Survey 1997	10,874	Yes	Yes	Yes	Yes	Yes	No	Yes
16	Madagascar	Enquête prioritaire des menages 2001	5,081	Yes	Yes	Yes	Yes	Yes	Yes	Yes
17	Malawi	Integrated Household Survey 2003	11,280	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18	Mauritania	Enquête permanente sur les conditions de vie des menages 2000	5,865	Yes	Yes	Yes	Yes	Yes	No	Yes
19	Morocco	Integrated Household Survey 2003	5,129	No	No	Yes	Yes	Yes	Yes	No
20	Mozambique	Inquérito aos agregados familiares sobre orçamento familiar 2002/3	8,703	Yes	Yes	Yes	Yes	Yes	Yes	Yes
21	Niger	Integrated Household Survey 2005	6,690	Yes	Yes	Yes	Yes	No	No	Yes
22	Nigeria	Nigeria Living Standards Survey 2003	19,158	Yes	Yes	Yes	Yes	No	No	Yes
23	Rwanda	Enquête intégrale sur les conditions de vie des menages (avec module budget et consommation) 1999	6,420	Yes	Yes	Yes	Yes	Yes	No	Yes
24	Sao Tome and Principe	Enquête sur les conditions de vie des menages 2000	6,594	Yes	Yes	Yes	Yes	No	No	Yes
25	Senegal	Integrated Expenditure Survey 2001	2,418	Yes	Yes	Yes	Yes	No	No	Yes
26	Sierra Leone	Integrated Household Survey 2003	3,713	Yes	Yes	Yes	Yes	Yes	No	Yes
27	South Africa	Integrated Expenditure Survey 2000	26,263	No	No	Yes	Yes	Yes	Yes	Yes
28	Tanzania	Household Budget Survey 2000	22,207	Yes	Yes	Yes	Yes	Yes	No	Yes
29	Uganda	National Household Survey 2002	9,710	Yes	Yes	Yes	Yes	Yes	Yes	Yes
30	Zambia	Living Conditions Monitoring Survey 2002	9,715	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Total			267,711	28	28	30	28	19	13	27

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.1.3 Standardization of socioeconomic and housing characteristics

Education	Wall material	Type	
1. No education/pre-school	1) Cement/Concrete	Improved	
2. Primary	2) Wood/cardboard/hardboard	Improved	
3. Secondary	3) Iron sheets/tiles/ asbestos/plastic	Improved	
4. Vocational/Specialized training	4) Bamboo/pole/pole and dagga Grass,straw	Unimproved	
5. Tertiary (BA, MA, Ph.D)	5) Mud/earth/mud brick 6) Burnt brick/stone 7) Other	Unimproved Improved Unimproved	
Floor material	Roof material		
1) Sand, earth, mud, dung, straw	Unimproved	1) Iron sheets/plastic sheets/asbestos sheets	Improved
2) Smoothed mud, grass/bamboo/broken bricks	Unimproved	2) Clay tiles/asbestos tiles	Improved
3) Cement/concrete/stone/bricks	Improved	3) Cement/concrete/bricks	Improved
4) Wood/tile / linoleum/vinyl or ashphalt strips/wood planks	Improved	4) Grass or straw / wood / mud / mud bricks/bamboo	Unimproved
5) Other	Unimproved	5) Other	Unimproved

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.1.4 Overview of socioeconomic and housing quality characteristics

Country	Household size	Head with more than secondary education (percent)	Households living in own dwelling (percent)	Households living in houses with improved roof (percent)	Households living in houses with improved wall (percent)	Households living in houses with improved floor (percent)
Angola	6.2	57.0	63.3	10.8	85.6	66.3
Benin	4.9	49.7	56.5	80.1	0.5	60.3
Burkina Faso	6.4	55.2	85.3	41.9	11.7	33.0
Burundi	4.9	4.0	94.9	—	—	—
Chad	5.9	16.4	81.0	14.7	0.0	2.6
Cameroon	2.9	21.1	53.1	77.8	29.4	49.7
Cape Verde	4.9	16.3	68.0	97.8	55.1	95.3
Congo, Dem Rep	5.3	66.3	75.7	35.5	17.6	18.7
Congo, Rep	5.1	62.6	74.2	—	58.1	58.8
Côte d'Ivoire	5.3	34.2	53.1	78.0	61.1	82.9
Ethiopia	4.9	5.4	86.2	25.5	85.0	—
Gabon	4.6	21.1	—	98.7	83.0	80.0
Ghana	4.3	22.7	41.6	78.1	47.4	86.0
Guinea-Bissau	7.6	11.7	74.1	48.3	0.3	—
Kenya	4.6	28.1	72.8	68.1	27.2	32.8
Madagascar	4.7	29.9	81.8	1.4	12.2	55.2
Malawi	4.5	18.4	80.9	25.7	2.3	19.6
Mauritania	6.5	44.3	77.4	—	—	—
Morocco	5.9	5.2	69.6	—	—	—
Mozambique	4.8	11.2	91.2	24.8	51.5	—
Niger	6.4	17.9	87.1	7.2	7.3	—
Nigeria	4.7	34.8	67.3	73.5	48.8	66.2
Rwanda	5.0	2.6	90.0	83.8	6.7	14.7
Sao Tome Prin	4.6	23.5	67.3	98.6	96.4	98.4
Senegal	9.8	14.6	75.7	—	—	—
Sierra Leone	6.2	41.2	53.0	66.5	26.0	36.7
South Africa	3.8	—	66.0	93.7	25.1	—
Tanzania	4.8	8.8	84.3	43.4	11.5	25.0
Uganda	5.1	27.3	77.4	64.6	1.9	26.3
Zambia	5.4	38.3	78.0	37.8	22.8	35.7

Source: AICD Expenditure Survey Database, 2007.

— = data not available.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.1.5 Methodology for estimation of trends in access to infrastructure services

One of the difficulties in estimating the Africa-wide trend in access rates stems from the fact that the panel of countries/surveys is not balanced. Some countries have observations from some years, while others have observations for other years. For this reason, three alternative methods can be used to estimate overall access trends.

Method 1: The first method includes only the 11 countries for which we have data in all three time periods.

Method 2: Under the second method, if data are available for only one time period, then those data are used for all three time periods, assuming no change over time in access; if data are available for two periods, the annual growth rate in coverage between the two periods is used to extrapolate forward or backward in order to get an estimate for the third period.

Method 3: The third method works in a similar way, but with one caveat: we assume that coverage cannot drop by more than population growth. That is, given population growth, if coverage in the third period drops by more than what would be observed assuming no growth in the total number of connections, then instead of using the observed value in the survey for the third period, this value is replaced by the coverage rate in the second period times the ratio of the population in the second period divided by the population in the third period.

In the next section, the reported figures on coverage of infrastructure services in the three time periods are computed according to Method 3.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.1.6 Comparison of AICD and JMP data on access to improved water and sanitation

	Improved water supply						Improved sanitation					
	JMP			AICD			JMP			AICD		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Benin	67	57	78	43	30	66	33	11	59	16	5	35
Burkina Faso	61	54	94	19	4	86	13	6	42	20	7	78
Cameroon	66	44	86	22	2	49	51	43	58	14	19	9
Chad	42	43	41	39	12	67	9	4	24	35	14	57
Comoros	86	82	92	11	2	45	33	29	41	5	1	20
Congo, Dem Rep	46	29	82	27	5	65	30	25	42	11	0	30
Congo, Rep	58	27	84	49	40	73	27	25	28	24	16	42
Côte d'Ivoire	84	74	97	49	8	86	37	29	46	20	4	35
Ethiopia	22	11	81	51	34	80	13	7	44	26	10	53
Gabon	88	47	95	22	13	89	36	30	37	3	2	12
Ghana	75	64	88	73	20	92	18	11	27	47	13	58
Guinea	50	35	78	36	10	72	18	11	31	33	12	62
Kenya	61	46	83	22	3	66	43	41	46	5	2	11
Lesotho	79	76	92	27	17	70	37	32	61	17	9	50
Madagascar	46	35	77	59	52	89	32	26	48	22	17	47
Malawi	73	68	98	23	12	64	61	61	62	51	45	74
Mali	50	36	78	19	9	75	46	39	59	5	2	20
Mauritania	53	44	59	29	18	61	34	8	49	17	10	36
Mozambique	43	26	72	32	18	51	32	19	53	6	0	13
Namibia	87	81	98	24	5	63	25	13	50	5	0	13
Niger	46	36	80	58	38	98	13	4	43	33	10	80
Nigeria	48	31	67	19	7	69	44	36	53	13	2	60
Rwanda	74	69	92	16	8	32	42	38	56	16	7	33
Senegal	76	60	92	28	22	57	57	34	79	30	26	55
South Africa	88	73	99	61	41	88	65	46	79	46	25	74
Sudan	70	64	78	29	15	49	34	24	50	6	1	14
Tanzania	62	49	85	78	55	98	47	43	53	46	6	80
Togo	52	36	80	33	22	67	35	15	71	6	2	22
Uganda	60	56	87	35	18	74	43	41	54	18	12	33
Zambia	50	27	86	9	1	62	44	31	63	4	2	20
Zimbabwe	81	72	98	34	7	83	53	47	63	20	3	49
Overall total	56	42	80	29	14	63	37	28	53	18	7	42

*AICD: Improved Water coverage includes piped supply and standpost supply. Improved Sanitation coverage includes flush toilet and VIP/SAN PLAT/Chemical toilet

Note: JMP data is from 2004 and AICD data is for the latest available year. JMP figures acknowledge that open pit latrine and traditional pit, pit latrine are terms often used interchangeably and cannot be considered as 'improved'. Therefore, only 50 percent of traditional pit latrine users are considered improved. In AICD, all the traditional pit latrine users are considered 'unimproved'.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.1.7 Population growth and average household size

Country	DHS survey year	Average household size	Cumulative population growth index (base = 1.00)	Annual population growth (percent)	Cumulative growth in number of households (base = 1.00)	Annual growth in number of households (percent)	Annual household minus pop. growth (percent)
Burkina Faso	1993	6.65	n.a.	n.a.	n.a.	n.a.	n.a.
	2003	6.47	1.34	2.93	1.37	3.22	0.29
Benin	1996	5.99	n.a.	n.a.	n.a.	n.a.	n.a.
	2001	5.18	1.16	3.02	1.34	6.05	3.03
Cameroon	1991	5.59	n.a.	n.a.	n.a.	n.a.	n.a.
	2004	4.76	1.34	2.27	1.57	3.54	1.27
Côte d'Ivoire	1994	6.21	n.a.	n.a.	n.a.	n.a.	n.a.
	1999	6.17	1.14	2.70	1.15	2.86	0.16
Ethiopia	2000	4.82	n.a.	n.a.	n.a.	n.a.	n.a.
	2005	5.03	1.11	2.08	1.06	1.23	-0.85
Ghana	1993	3.76	n.a.	n.a.	n.a.	n.a.	n.a.
	2003	4.03	1.26	2.34	1.18	1.65	-0.69
Guinea	1999	6.62	n.a.	n.a.	n.a.	n.a.	n.a.
	2005	6.09	1.14	2.18	1.24	3.61	1.43
Kenya	1993	4.79	n.a.	n.a.	n.a.	n.a.	n.a.
	2003	4.35	1.27	2.43	1.40	3.43	0.99
Madagascar	1992	5.17	n.a.	n.a.	n.a.	n.a.	n.a.
	2004	4.62	1.42	2.96	1.59	3.93	0.97
Mali	1996	5.60	n.a.	n.a.	n.a.	n.a.	n.a.
	2001	5.32	1.15	2.85	1.21	3.88	1.03
Malawi	1992	4.46	n.a.	n.a.	n.a.	n.a.	n.a.
	2004	4.38	1.28	2.11	1.31	2.27	0.16
Mozambique	1997	4.62	n.a.	n.a.	n.a.	n.a.	n.a.
	2003	4.85	1.14	2.17	1.08	1.34	-0.83
Nigeria	1990	6.28	n.a.	n.a.	n.a.	n.a.	n.a.
	2003	4.97	1.39	2.57	1.75	4.42	1.85
Niger	1992	6.27	n.a.	n.a.	n.a.	n.a.	n.a.
	1998	5.93	1.22	3.36	1.29	4.32	0.96
Namibia	1992	6.00	n.a.	n.a.	n.a.	n.a.	n.a.
	2000	5.05	1.26	2.94	1.50	5.16	2.23
Rwanda	1992	4.97	n.a.	n.a.	n.a.	n.a.	n.a.
	2005	4.57	1.41	2.70	1.54	3.37	0.66
Senegal	1993	8.83	n.a.	n.a.	n.a.	n.a.	n.a.
	2005	8.69	1.35	2.51	1.37	2.66	0.14
Chad	1997	5.33	n.a.	n.a.	n.a.	n.a.	n.a.
	2004	5.35	1.26	3.41	1.26	3.35	-0.06
Tanzania	1992	5.31	n.a.	n.a.	n.a.	n.a.	n.a.
	2004	4.87	1.34	2.46	1.46	3.21	0.75
Uganda	1995	4.75	n.a.	n.a.	n.a.	n.a.	n.a.
	2001	4.80	1.20	3.11	1.19	2.94	-0.17
Zambia	1992	5.61	n.a.	n.a.	n.a.	n.a.	n.a.
	2002	5.24	1.25	2.29	1.34	2.98	0.70
Zimbabwe	1994	4.67	n.a.	n.a.	n.a.	n.a.	n.a.
	1999	4.19	1.07	1.45	1.20	3.70	2.25

Source: Diallo and Wodon (2007), estimation using DHS data. Population data are from the World Bank's database.

n.a. = not applicable.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.1.8 Methodology for calculating the year of universal coverage of infrastructure services

The population in the year of reference is Y^r and it is assumed that the population grows at a steady growth rate G_p . The covered population on the same year is assumed to be known and it increases at a constant rate G_{cp} . On the year $Y^r + 1$:

- The population is given by the formula:
- The covered population is given by the formula:

$$\begin{aligned} P(Y^r + 1) &= G_p \times P(Y^r) \\ P^C(Y^r + 1) &= G_{cp} \times P^C(Y^r) \end{aligned}$$

The rate of coverage on the year $Y^r + 1$ is as follows:

$$\frac{P^C(Y^r + 1)}{P(Y^r + 1)} = \frac{G_{cp}}{G_p} \times \frac{P^C(Y^r)}{P(Y^r)}$$

Therefore the rate of coverage increases¹ (or decreases) at a rate $\frac{G_{cp}}{G_p}$.

The rate of coverage on any year Y (such that $Y > Y^r$) is given by:

$$\frac{P^C(Y)}{P(Y)} = \left(\frac{G_{cp}}{G_p} \right)^{Y-Y^r} \times \frac{P^C(Y^r)}{P(Y^r)}$$

Universal coverage corresponds to a rate of coverage equal to 1 (or 100 if we carry out our analysis in percentage terms but then the previous formulas for the rate of coverage have to be expressed in percentages):

$$\frac{P^C(Y)}{P(Y)} = 1$$

but from the previous formula that translates to:

$$\left(\frac{G_{cp}}{G_p} \right)^{Y-Y^r} \times \frac{P^C(Y^r)}{P(Y^r)} = 1$$

Therefore the year of full coverage Y^{UC} is given by the following formula²:

$$Y = Y^r + \frac{\log\left(\frac{P(Y^r)}{P^C(Y^r)}\right)}{\log\left(\frac{G_{cp}}{G_p}\right)}$$

¹ There is a net increase in the coverage if (and only if) G_{cp} is greater than G_p , otherwise if the population increases at a higher rate than the covered population there are no chances for full coverage to occur.

² $\left(\frac{G_{cp}}{G_p} \right)^{Y-Y^r} \times \frac{P^C(Y^r)}{P(Y^r)} = 1 \Rightarrow \left(\frac{G_{cp}}{G_p} \right)^{Y-Y^r} = \frac{P(Y^r)}{P^C(Y^r)} \Rightarrow (Y - Y^r) \times \log\left(\frac{G_{cp}}{G_p}\right) = \log\left(\frac{P(Y^r)}{P^C(Y^r)}\right)$

Part 2 Access to modern infrastructure services

Table A1.2.1 Piped water

Table A1.2.2 Improved water

Table A1.2.3 Flush toilet

Table A1.2.4 Improved sanitation

Table A1.2.5 Electricity

Table A1.2.6 Landline telephone

Table A1.2.7 Cellular telephone

Table A1.2.8 Refuse collection by Government, Private Company or NGO

Table A1.2.9 Coverage of any one modern infrastructure services

Table A1.2.10 Coverage of any two modern infrastructure service

Table A1.2.11 Coverage of any three modern infrastructure service

Table A1.2.12 Coverage of any four modern infrastructure service

Table A1.2.13 Access, Hook-up, Coverage of piped water (Urban)

Table A1.2.14 Adjusted Access, Hook-up, Coverage of piped water (Urban)

Table A1.2.15 Access, Hook-up, Coverage of flush toilet (Urban)

Table A1.2.16 Access, Hook-up, Coverage of electricity (Urban)

Table A1.2.17 Adjusted Access, Hook-up, Coverage of electricity (Urban)

Table A1.2.18 Access, Hook-up, Coverage of landline telephone (Urban)

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.1 Piped water

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	23	29	11	60	0	8	10	37	89
Burkina Faso	6	4	6	0	33	0	0	0	0	34
Cameroon	12	11	13	2	24	0	0	4	11	49
C. African Rep	3	—	—	0	6	0	0	0	0	13
Chad	—	3	4	0	22	0	0	0	0	22
Comoros	—	23	—	15	43	0	38	14	21	46
Congo, Dem Rep	21	—	15	0	40	0	0	0	7	59
Congo, Rep	—	—	26	3	46	0	0	5	34	90
Côte d'Ivoire	24	28	—	7	65	0	2	3	38	98
Ethiopia	—	4	6	0	48	0	0	0	0	30
Gabon	—	43	—	9	55	0	7	30	78	100
Ghana	14	15	15	2	34	1	2	2	11	60
Guinea	—	10	9	1	28	0	0	0	2	44
Kenya	16	20	18	10	50	0	1	4	22	62
Lesotho	—	11	11	2	50	0	0	0	3	50
Madagascar	5	6	5	2	17	0	0	0	2	24
Malawi	6	8	6	2	32	0	1	0	1	30
Mali	—	6	9	2	29	0	1	1	4	38
Mauritania	—	—	17	10	28	0	0	5	25	57
Mozambique	—	7	7	0	20	0	0	0	0	34
Namibia	31	37	—	16	79	0	2	17	68	100
Niger	5	6	—	0	31	0	0	0	5	26
Nigeria	11	10	7	2	15	0	1	4	11	18
Rwanda	2	6	3	1	16	0	0	0	1	13
Senegal	27	31	43	18	77	1	9	36	75	96
South Africa	—	59	—	25	88	3	25	72	97	100
Sudan	—	21	—	10	37	0	0	5	45	77
Tanzania	10	14	7	3	22	0	0	0	7	30
Togo	—	18	—	3	51	1	2	5	17	63
Uganda	2	—	2	0	14	0	0	0	0	10
Zambia	31	21	18	3	46	0	0	0	15	77
Zimbabwe	27	33	—	4	93	0	11	7	49	99
Income group										
Low income	14	13	14	3	32	0	1	3	13	41
Middle income	50	45	42	17	69	2	16	47	69	86
Urbanization										
Low	6	7	8	2	33	0	0	1	5	31
Medium	25	23	22	4	42	0	2	3	20	64
High	7	8	22	7	39	1	6	17	32	49
Region										
East	10	9	11	3	37	0	0	2	12	39
West	15	15	15	3	28	0	2	5	16	38
South	34	34	29	8	65	1	10	26	42	67
Central	18	14	16	1	34	0	0	2	9	53
Overall	18	17	17	4	38	0	3	7	18	46

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.2 Improved water

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	29	43	29	66	14	26	30	53	91
Burkina Faso	16	12	19	4	86	0	0	5	17	81
Cameroon	34	35	39	12	67	0	17	33	60	85
C. African Rep	22	—	—	2	49	0	2	10	36	60
Chad	—	9	11	2	45	0	1	7	7	41
Comoros	—	49	—	40	73	69	46	39	36	53
Congo, Dem Rep	28	—	27	5	65	0	3	8	30	83
Congo. Rep of	—	—	49	8	86	4	12	51	84	96
Côte d'Ivoire	45	51	—	34	80	24	34	32	68	98
Ethiopia	—	16	22	13	89	0	4	18	20	67
Gabon	—	73	—	20	92	14	62	93	98	100
Ghana	32	37	36	10	72	3	24	19	46	87
Guinea	—	21	22	3	66	0	0	5	18	87
Kenya	27	29	27	17	70	3	6	15	37	76
Lesotho	—	63	59	52	89	55	43	56	58	81
Madagascar	17	17	23	12	64	0	0	6	36	74
Malawi	26	24	19	9	75	0	1	7	24	65
Mali	—	17	29	18	61	1	13	29	33	72
Mauritania	—	—	32	18	51	0	24	24	46	68
Mozambique	—	24	24	5	63	0	3	6	29	86
Namibia	50	58	—	38	98	13	32	55	91	100
Niger	17	19	—	7	69	0	0	0	37	57
Nigeria	24	24	16	8	32	4	8	13	25	32
Rwanda	23	36	28	22	57	0	3	51	24	61
Senegal	45	48	61	41	88	20	42	60	88	98
South Africa	—	78	—	55	98	34	72	89	98	100
Sudan	—	29	—	15	49	8	10	14	52	83
Tanzania	31	34	33	22	67	12	15	20	44	72
Togo	—	35	—	18	74	9	14	25	45	84
Uganda	6	—	9	1	62	0	0	1	3	42
Zambia	49	37	34	7	83	0	3	14	60	94
Zimbabwe	35	40	—	12	99	1	20	17	65	99
Income group										
Low income	27	28	28	12	58	4	9	15	33	66
Middle income	74	67	63	41	90	24	53	72	87	95
Urbanization										
Low	19	19	23	13	72	3	5	15	27	66
Medium	39	39	35	10	66	3	7	12	42	86
High	41	40	38	19	58	11	25	33	49	62
Region										
East	33	32	33	14	68	4	7	16	30	69
West	32	32	32	13	49	6	13	17	35	56
South	53	53	46	22	87	13	30	39	62	89
Central	30	26	29	6	66	0	7	16	37	79
Overall	32	32	32	14	63	6	13	21	38	69

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.3 Flush toilet

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	0	2	0	6	0	0	0	1	11
Burkina Faso	1	1	2	0	8	0	0	0	1	9
Cameroon	7	6	8	1	16	0	0	0	2	38
C. African Rep	1	—	—	0	2	0	0	0	0	5
Chad	—	0	2	0	7	0	0	0	1	8
Comoros	—	3	—	1	8	0	0	0	1	14
Congo, Dem Rep	2	—	1	0	4	0	0	0	0	6
Congo, Rep	—	—	5	0	10	0	0	0	2	24
Côte d'Ivoire	14	12	—	2	30	0	0	0	2	60
Ethiopia	—	0	2	1	8	0	0	1	4	6
Gabon	—	25	—	4	32	0	1	5	22	95
Ghana	6	8	10	2	23	0	2	1	4	43
Guinea	—	3	3	1	8	0	0	0	1	12
Kenya	8	10	9	1	39	0	0	0	2	43
Lesotho	—	2	2	0	8	0	0	0	0	8
Madagascar	3	2	2	0	7	0	0	0	1	8
Malawi	3	3	4	1	18	0	1	0	1	16
Mali	—	1	6	3	15	0	0	7	6	18
Mauritania	—	—	2	0	4	0	0	0	0	8
Mozambique	—	3	3	0	8	0	0	0	0	14
Namibia	27	31	—	7	79	0	0	2	52	99
Niger	1	1	—	0	5	0	0	0	2	3
Nigeria	8	12	13	6	28	0	0	1	10	54
Rwanda	1	1	1	0	6	0	0	0	0	5
Senegal	11	9	36	14	65	1	7	37	57	78
South Africa	—	46		6	80	0	4	36	93	100
Sudan	—	6	—	1	14	0	0	1	7	31
Tanzania	1	2	3	0	10	0	0	0	1	13
Togo	—	0	—	0	0	0	0	0	0	0
Uganda	2	—	2	0	11	0	0	0	1	7
Zambia	27	21	18	2	47	0	0	1	14	76
Zimbabwe	26	31	—	2	95	0	11	6	43	99
Income group										
Low income	6	7	8	2	22	0	1	2	6	29
Middle income	38	33	31	4	58	0	2	22	61	78
Urbanization										
Low	2	1	3	1	13	0	0	1	2	13
Medium	12	16	10	1	19	0	1	1	7	27
High	17	18	19	5	38	0	1	9	25	61
Region										
East	10	10	11	1	15	0	0	1	3	17
West	7	9	11	4	26	0	1	3	9	44
South	27	27	22	2	57	0	3	13	39	59
Central	5	5	6	0	9	0	0	0	1	14
Overall	9	9	10	2	28	0	1	4	12	34

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.4 Improved sanitation

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	1	16	5	35	0	1	4	13	63
Burkina Faso	2	1	20	7	78	0	1	3	21	83
Cameroon	7	30	35	14	57	0	1	25	65	84
C. African Rep	14	—	—	19	9	16	28	13	7	8
Chad	—	8	5	1	20	0	0	0	2	21
Comoros	—	24	—	16	42	0	0	18	25	76
Congo, Dem Rep	12	—	11	0	30	0	0	0	2	46
Congo, Rep	—	—	20	4	35	0	1	8	21	72
Côte d'Ivoire	37	26	—	10	53	0	1	11	31	87
Ethiopia	—	1	3	2	12	0	0	1	4	10
Gabon	—	47	—	13	58	2	14	43	75	100
Ghana	19	29	33	12	62	1	24	19	43	79
Guinea	—	3	5	2	11	0	1	4	3	16
Kenya	14	16	17	9	50	0	0	6	14	64
Lesotho	—	20	22	17	47	0	1	25	35	51
Madagascar	33	7	51	45	74	0	20	66	78	90
Malawi	3	4	5	2	20	0	1	0	1	22
Mali	—	9	17	10	36	0	1	15	23	46
Mauritania	—	—	6	0	13	0	0	0	4	24
Mozambique	—	4	5	0	13	0	0	0	0	24
Namibia	27	33	—	10	80	0	0	9	59	99
Niger	13	13	—	2	60	0	0	0	5	61
Nigeria	8	18	16	7	33	0	1	3	15	61
Rwanda	1	10	30	26	55	0	0	4	76	72
Senegal	33	32	46	25	74	8	24	47	67	85
South Africa	—	46	—	6	80	0	4	36	93	100
Sudan	—	6	—	1	14	0	0	1	7	31
Tanzania	3	3	6	2	22	0	0	0	2	30
Togo	—	18	—	12	33	0	4	7	32	48
Uganda	3	—	4	2	20	0	0	1	3	17
Zambia	29	21	20	3	49	0	0	2	18	78
Zimbabwe	47	56	—	37	97	7	35	64	79	100
Income group										
Low income	12	14	17	7	36	0	3	7	16	48
Middle income	40	41	39	9	71	0	3	30	79	93
Urbanization										
Low	7	4	12	7	34	0	2	7	15	37
Medium	28	32	26	5	30	1	4	7	13	46
High	21	27	26	9	50	1	5	15	38	74
Region										
East	14	15	19	4	23	0	0	2	9	29
West	15	20	21	8	40	1	4	8	21	64
South	34	32	33	15	66	1	8	30	56	75
Central	14	22	24	3	37	1	2	6	16	51
Overall	15	16	18	7	42	0	3	10	23	53

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.5 Electricity

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	14	22	6	51	0	1	3	24	82
Burkina Faso	6	6	10	1	54	0	0	1	2	57
Cameroon	31	42	46	16	77	1	14	37	78	98
C. African Rep	5	—	—	1	11	0	0	0	1	25
Chad	—	3	4	0	20	0	0	0	0	21
Comoros	—	30	—	21	54	0	7	17	48	84
Congo, Dem Rep	—	—	—	—	—	—	—	—	—	—
Congo, Rep	—	—	35	16	51	5	14	20	47	88
Côte d'Ivoire	39	50	—	27	90	4	19	41	87	100
Ethiopia	—	11	12	2	86	0	0	1	3	56
Gabon	—	75	—	31	91	17	69	93	98	99
Ghana	28	39	44	21	77	8	39	28	57	90
Guinea	—	17	21	3	63	0	0	4	18	83
Kenya	9	12	13	4	51	0	0	1	7	57
Lesotho	—	—	6	1	28	0	0	0	1	27
Madagascar	9	11	19	10	52	0	0	1	11	82
Malawi	4	6	7	2	34	0	1	0	3	34
Mali	—	8	13	3	41	1	3	2	5	54
Mauritania	—	—	23	3	51	0	2	5	29	81
Mozambique	—	10	11	1	30	0	0	1	4	51
Namibia	20	32	—	10	75	1	1	6	51	100
Niger	6	8	—	0	41	0	0	0	4	36
Nigeria	26	45	51	35	84	10	37	40	78	91
Rwanda	2	7	5	1	27	0	0	1	1	25
Senegal	25	32	46	19	82	4	12	46	76	94
South Africa	—	63	—	36	86	10	36	74	98	100
Sudan	—	—	—	—	—	—	—	—	—	—
Tanzania	6	7	11	2	39	0	0	0	3	50
Togo	—	15	—	2	44	0	0	2	10	62
Uganda	7	—	8	3	47	0	0	2	2	38
Zambia	23	20	20	3	50	0	0	0	15	84
Zimbabwe	23	34	—	7	90	0	12	12	50	97
Income group										
Low income	17	24	27	11	69	3	12	15	32	68
Middle income	59	55	53	27	81	7	28	59	86	97
Urbanization										
Low	8	8	11	3	56	0	0	1	4	52
Medium	24	30	28	3	48	0	1	2	11	60
High	37	47	51	30	83	8	32	45	79	94
Region										
East	17	24	27	2	60	0	0	1	3	53
West	25	37	43	20	78	6	23	27	55	80
South	36	37	35	13	66	4	14	28	42	77
Central	25	28	29	8	66	1	11	20	47	76
Overall	23	28	31	12	71	4	14	20	38	72

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.6 Landline telephone

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	—	4	1	10	0	0	0	4	18
Burkina Faso	—	2	4	0	20	0	0	0	0	21
Cameroon	—	3	2	0	5	0	0	1	1	10
C. African Rep	1	—	—	0	3	0	0	0	0	7
Chad	—	0	1	0	4	0	0	0	0	4
Comoros	—	3	—	1	9	0	0	0	1	15
Congo, Dem Rep	—	—	—	—	—	—	—	—	—	—
Congo, Rep	—	—	1	0	2	0	0	0	1	4
Côte d'Ivoire	—	7	—	2	15	0	0	0	1	32
Ethiopia	—	2	4	0	35	0	0	0	0	22
Gabon	—	15	—	2	20	0	1	8	18	48
Ghana	—	2	8	1	17	0	1	1	4	31
Guinea	—	2	7	0	24	0	0	0	4	32
Kenya	—	3	12	6	37	0	1	3	8	49
Lesotho	—	—	17	11	46	0	1	5	22	57
Madagascar	—	1	5	3	12	0	0	0	1	23
Malawi	—	—	6	2	27	0	1	0	2	27
Mali	—	1	3	0	13	0	0	0	1	17
Mauritania	—	—	4	0	8	0	0	0	1	16
Mozambique	—	1	2	0	6	0	0	0	0	11
Namibia	—	17	—	4	44	0	0	2	15	70
Niger	—	1	—	0	5	0	0	0	1	4
Nigeria	—	2	5	2	12	0	1	0	3	21
Rwanda	—	2	1	0	6	0	0	0	0	5
Senegal	—	—	20	7	36	0	3	20	25	51
South Africa	—	27	—	5	45	0	2	9	41	84
Sudan	—	—	—	—	—	—	—	—	—	—
Tanzania	—	—	10	3	31	0	0	1	6	42
Togo	—	—	—	—	—	—	—	—	—	—
Uganda	1	—	3	1	18	0	0	0	0	15
Zambia	—	—	4	1	11	0	0	0	5	17
Zimbabwe	—	7	—	1	19	0	3	2	8	23
Income group										
Low income	3	3	6	2	17	0	1	1	3	25
Middle income	22	20	18	4	32	0	1	6	28	59
Urbanization										
Low	3	3	6	2	24	0	0	1	2	24
Medium	4	4	4	1	18	0	0	1	4	25
High	9	8	10	2	19	0	1	3	11	34
Region										
East	3	3	6	2	33	0	0	1	3	32
West	3	3	6	1	14	0	1	1	4	23
South	15	13	12	3	31	0	1	3	18	46
Central	3	2	2	0	8	0	1	1	3	12
Overall	6	5	7	2	20	0	1	2	6	29

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year.

ANNEX 1 CROSS-COUNTRY TABLES

Table 1.2.7 Cellular telephone

Percentage of population

Country	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5
Angola	—	—	—	—	—	—	—	—
Benin	—	—	—	—	—	—	—	—
Burkina Faso	—	—	—	—	—	—	—	—
Burundi	—	—	—	—	—	—	—	—
Chad	6.35	5.16	11.09	4.50	3.64	5.78	6.63	11.21
Cameroon	7.61	0.77	16.95	0.24	1.48	3.26	8.35	24.72
Cape Verde	19.14	9.85	26.72	4.20	7.49	15.30	24.56	44.20
Congo, Dem Rep	10.86	1.43	32.43	2.13	3.86	6.54	12.37	29.43
Congo, Rep	—	—	—	—	—	—	—	—
Côte d'Ivoire	15.35	2.26	32.58	0.85	3.33	9.15	19.63	43.81
Ethiopia	—	—	—	—	—	—	—	—
Gabon	63.97	27.89	70.75	24.98	47.85	63.86	75.96	82.27
Ghana	—	—	—	—	—	—	—	—
Guinea-Bissau	—	—	—	—	—	—	—	—
Kenya	—	—	—	—	—	—	—	—
Madagascar	1.75	0.97	4.40	0.00	0.00	0.06	0.00	8.72
Malawi	3.51	1.13	22.06	0.05	0.11	0.34	1.39	15.66
Mauritania	—	—	—	—	—	—	—	—
Morocco	0.69	0.18	1.12	0.17	0.00	0.00	0.70	2.58
Mozambique	6.22	0.95	15.05	0.07	1.04	1.04	3.79	20.74
Niger	—	—	—	—	—	—	—	—
Nigeria	—	—	—	—	—	—	—	—
Rwanda	—	—	—	—	—	—	—	—
Sao Tome Prin	—	—	—	—	—	—	—	—
Senegal	—	—	—	—	—	—	—	—
Sierra Leone	—	—	—	—	—	—	—	—
South Africa	23.00	11.52	31.65	4.05	7.81	13.95	26.73	62.54
Overall	10.10	2.88	22.38	1.57	3.05	5.48	10.97	29.02
Income group								
Low income	5.8	2.2	25.4	0.3	0.7	1.6	5.1	21.3
Middle income	30.6	13.2	37.9	10.8	20.6	28.4	36.2	46.9
Urbanization								
Low	4.74	3.17	20.14	1.80	1.51	2.51	3.62	14.25
Medium	5.91	0.79	15.35	0.12	0.95	1.23	4.01	20.27
High	17.73	7.86	22.26	3.76	7.68	13.13	21.39	40.67
Region								
East	6.64	3.23	28.02	0.02	0.42	1.13	5.84	25.82
West	15.25	2.50	31.28	1.05	3.51	9.33	19.51	42.89
South	6.17	1.63	14.50	0.22	1.12	1.40	4.10	20.65
Central	28.06	11.98	32.38	10.09	18.61	25.69	32.91	44.53

Source: AICD Expenditure Survey Database.

Note: The data are from the most recent IES/LSMS.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.8 Rubbish disposal-collected by government, NGO or private company

Percentage of population

Country	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5
Benin	13.0	9.9	17.4	6.3	6.7	8.9	12.9	21.9
Burkina Faso	6.3	0.3	29.5	0.5	0.7	1.4	4.1	17.4
Cameroon	17.6	0.4	41.5	2.4	6.4	10.2	17.1	31.5
Chad	5.9	2.4	19.6	2.8	3.1	2.7	5.8	11.5
Congo, Dem Rep	2.3	0.1	8.2	0.4	0.6	1.0	2.0	5.5
Congo, Rep	18.9	0.0	33.3	8.0	13.5	13.7	17.8	33.1
Côte d'Ivoire	22.4	0.8	49.3	4.0	9.7	13.9	23.7	42.5
Ethiopia	2.6	0.1	17.7	0.7	1.1	1.2	2.2	6.3
Ghana	4.2	0.4	10.7	0.3	0.5	2.4	3.5	9.3
Madagascar	8.3	5.8	16.1	0.3	2.7	4.8	5.9	21.4
Malawi	2.9	1.0	16.5	0.7	1.1	1.4	1.8	7.1
Mauritania	12.0	1.1	27.2	2.1	2.5	7.2	13.8	25.6
Morocco	49.7	2.5	85.1	26.7	38.4	53.6	63.3	78.6
Nigeria	14.8	2.3	30.0	18.2	11.4	10.9	13.9	18.2
Rwanda	3.2	0.3	29.2	0.2	0.4	0.9	1.2	11.9
Sierra Leone	2.7	0.7	6.7	0.7	1.0	1.2	1.9	9.2
Tanzania	3.1	0.5	12.4	0.9	1.6	1.1	2.1	7.0
Uganda	3.2	0.5	16.1	1.1	1.7	3.0	4.4	8.4
Zambia	3.6	0.9	9.0	0.9	2.0	2.6	3.5	7.1
Overall	10.6	1.3	29.8	7.2	6.8	8.1	10.9	17.6
Income group								
Low income	7.8	1.2	22.6	6.1	4.7	5.1	7.2	13.0
Middle income	36.7	1.5	67.4	17.2	26.0	36.2	44.5	59.6
Urbanization								
Low	3.8	0.9	17.2	0.8	1.5	1.8	3.1	9.4
Medium	3.5	1.1	9.2	1.1	1.4	1.9	3.2	7.5
High	19.0	1.9	38.6	16.0	13.7	16.1	20.2	27.4
Region								
East	2.9	0.3	15.9	0.8	1.3	1.5	2.6	7.2
West	8.0	0.8	22.7	6.4	5.6	6.6	8.5	11.9
South	5.3	3.0	13.5	0.6	2.0	3.1	4.0	13.1
Central	6.2	0.4	19.3	1.4	2.5	3.4	5.8	12.0

Source: AICD Expenditure Survey Database.

Note: The data are from the most recent IES/LSMS.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.9 Coverage of any one modern infrastructure service

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	27	34	14	68	0	9	12	48	97
Burkina Faso	8	7	12	1	58	0	0	1	4	62
Cameroon	32	42	49	20	79	1	16	43	84	99
C. African Rep	6	—	—	1	14	0	0	0	1	31
Chad	—	4	7	1	33	0	0	0	1	36
Comoros	—	43	—	33	70	0	44	29	59	92
Congo, Dem Rep	—	—	—	—	—	—	—	—	—	—
Congo, Rep	—	—	41	17	63	5	15	24	65	98
Côte d'Ivoire	42	52	—	29	91	4	20	44	94	100
Ethiopia	—	11	13	3	88	0	0	2	6	59
Gabon	—	77	—	33	92	17	72	96	99	100
Ghana	29	41	46	21	80	8	39	29	60	94
Guinea	—	20	23	4	68	0	0	4	20	90
Kenya	19	24	26	15	66	0	3	8	32	85
Lesotho	—	—	22	12	66	0	1	5	24	79
Madagascar	10	13	19	10	53	0	0	1	12	84
Malawi	7	9	11	5	46	0	1	1	4	50
Mali	—	10	18	7	50	1	4	10	14	62
Mauritania	—	—	30	12	54	0	2	10	48	90
Mozambique	—	12	13	2	35	0	0	1	4	60
Namibia	33	43	—	21	86	1	3	25	86	100
Niger	8	10	—	1	48	0	0	0	6	42
Nigeria	28	46	52	36	85	10	39	41	80	92
Rwanda	3	9	8	3	36	0	0	2	2	35
Senegal	34	39	62	39	92	13	36	69	93	99
South Africa	—	71	—	43	94	12	51	92	100	100
Sudan	—	—	—	—	—	—	—	—	—	—
Tanzania	12	16	16	6	51	0	0	1	12	68
Togo	—	24	—	5	67	1	2	7	25	83
Uganda	8	—	10	3	52	0	0	2	3	43
Zambia	35	26	25	4	63	0	0	1	25	100
Zimbabwe	29	38	—	10	99	0	12	13	68	100
Income group										
Low income	21	28	31	13	74	4	14	17	38	76
Middle income	66	61	59	34	88	9	38	72	91	99
Urbanization										
Low	11	11	15	6	64	0	1	3	11	62
Medium	36	40	36	5	58	0	2	4	20	71
High	40	50	55	34	86	10	37	50	83	95
Region										
East	21	28	31	6	68	0	1	3	13	65
West	30	41	46	22	80	7	26	30	59	83
South	42	43	39	16	74	5	19	36	46	84
Central	27	30	33	10	72	1	12	23	56	82
Overall	27	32	35	15	76	4	17	23	44	78

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.10 Coverage of any two modern infrastructure services

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	10	18	3	44	0	0	1	13	74
Burkina Faso	4	3	7	0	37	0	0	0	0	38
Cameroon	12	12	27	4	51	0	2	10	39	86
C. African Rep	2	—	—	0	5	0	0	0	0	11
Chad	—	2	3	0	14	0	0	0	0	15
Comoros	—	12	—	4	31	0	1	1	10	47
Congo, Dem Rep	—	—	—	—	—	—	—	—	—	—
Congo, Rep	—	—	21	2	37	0	0	2	18	83
Côte d'Ivoire	23	27	—	5	64	0	0	1	34	99
Ethiopia	—	4	7	0	56	0	0	0	0	35
Gabon	—	45	—	8	58	0	5	35	86	100
Ghana	13	16	18	2	39	0	3	3	12	70
Guinea	—	8	11	1	35	0	0	0	2	52
Kenya	8	11	13	4	51	0	0	1	4	61
Lesotho	—	—	8	1	38	0	0	0	2	36
Madagascar	5	5	7	4	22	0	0	0	2	35
Malawi	3	5	6	2	30	0	1	0	1	29
Mali	—	4	8	1	29	0	0	0	2	39
Mauritania	—	—	12	1	26	0	0	0	7	52
Mozambique	—	5	6	0	17	0	0	0	0	30
Namibia	26	32	—	9	78	0	0	2	59	100
Niger	4	5	—	0	25	0	0	0	3	21
Nigeria	13	16	17	6	39	0	1	4	19	63
Rwanda	1	5	4	1	24	0	0	0	1	21
Senegal	20	26	49	21	85	3	11	47	85	97
South Africa	—	56	—	19	86	0	14	66	99	100
Sudan	—	—	—	—	—	—	—	—	—	—
Tanzania	5	6	9	2	31	0	0	0	3	40
Togo	—	9	—	0	29	0	0	0	2	42
Uganda	2	—	3	0	23	0	0	0	0	17
Zambia	27	21	19	3	49	0	0	0	11	84
Zimbabwe	26	32	—	3	96	0	11	6	47	100
Income group										
Low income	10	12	14	3	41	0	1	2	11	51
Middle income	47	42	43	13	73	0	9	45	76	94
Urbanization										
Low	4	4	7	1	39	0	0	0	1	37
Medium	18	23	20	1	39	0	1	1	8	47
High	24	25	27	8	53	0	4	17	38	76
Region										
East	10	12	14	1	45	0	0	0	2	41
West	14	16	18	4	41	0	1	4	17	59
South	32	32	28	7	60	0	5	25	40	64
Central	11	11	18	2	52	0	4	6	30	70
Overall	15	16	17	4	47	0	2	7	19	56

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5)

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.11 Coverage of any three modern infrastructure services

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	0	5	1	12	0	0	0	3	21
Burkina Faso	1	1	3	0	16	0	0	0	0	16
Cameroon	6	6	11	1	22	0	0	1	5	51
C. African Rep	1	—	—	0	3	0	0	0	0	6
Chad	—	1	1	0	4	0	0	0	0	4
Comoros	—	3	—	1	9	0	0	0	0	15
Congo, Dem Rep	—	—	—	—	—	—	—	—	—	—
Congo, Rep	—	—	5	0	9	0	0	0	1	23
Côte d'Ivoire	11	13	—	2	32	0	0	0	0	65
Ethiopia	—	1	4	0	31	0	0	0	0	19
Gabon	—	26	—	4	33	0	0	4	27	97
Ghana	5	7	9	1	21	0	2	1	3	41
Guinea	—	3	5	0	15	0	0	0	1	22
Kenya	5	7	9	1	39	0	0	0	2	42
Lesotho	—	—	4	0	23	0	0	0	1	20
Madagascar	2	2	3	1	9	0	0	0	1	14
Malawi	2	3	4	1	21	0	1	0	1	19
Mali	—	1	4	0	14	0	0	0	0	19
Mauritania	—	—	3	0	8	0	0	0	0	17
Mozambique	—	3	3	0	8	0	0	0	0	15
Namibia	18	27	—	5	70	0	0	0	35	100
Niger	1	1	—	0	7	0	0	0	2	5
Nigeria	4	6	6	2	14	0	0	1	3	25
Rwanda	1	2	2	0	13	0	0	0	1	10
Senegal	8	8	38	12	71	0	3	30	65	91
South Africa	—	44	—	6	76	0	1	28	93	100
Sudan	—	—	—	—	—	—	—	—	—	—
Tanzania	1	1	4	1	15	0	0	0	1	19
Togo	—	0	—	0	0	0	0	0	0	0
Uganda	1	—	1	0	11	0	0	0	0	7
Zambia	19	15	13	1	34	0	0	0	8	58
Zimbabwe	21	28	—	1	84	0	11	6	28	95
Income group										
Low income	4	5	7	1	21	0	0	1	4	25
Middle income	36	32	31	4	57	0	0	18	61	81
Urbanization										
Low	2	1	4	0	23	0	0	0	1	20
Medium	9	13	11	1	23	0	1	1	4	27
High	14	14	15	3	31	0	0	7	22	43
Region										
East	4	5	7	0	27	0	0	0	1	23
West	4	5	8	2	18	0	0	2	5	24
South	24	25	22	2	49	0	0	11	37	52
Central	5	5	7	1	31	0	3	2	10	49
Overall	8	8	10	1	28	0	0	3	11	32

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.12 Coverage of any four modern infrastructure services

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	0	1	0	4	0	0	0	0	7
Burkina Faso	0	0	1	0	4	0	0	0	0	4
Cameroon	0	1	6	0	12	0	0	0	1	28
C. African Rep	0	—	—	0	1	0	0	0	0	2
Chad	—	0	0	0	1	0	0	0	0	1
Comoros	—	1	—	0	3	0	0	0	0	5
Congo, Dem Rep	—	—	—	—	—	—	—	—	—	—
Congo, Rep	—	—	0	0	1	0	0	0	0	1
Côte d'Ivoire	0	5	—	1	12	0	0	0	0	24
Ethiopia	—	0	2	0	13	0	0	0	0	8
Gabon	—	10	—	1	13	0	0	1	4	46
Ghana	0	2	4	0	10	0	1	0	1	20
Guinea	—	1	1	0	4	0	0	0	0	7
Kenya	0	2	5	1	22	0	0	0	1	23
Lesotho	—	—	1	0	6	0	0	0	0	6
Madagascar	0	0	1	0	4	0	0	0	1	5
Malawi	0	0	3	1	18	0	1	0	0	15
Mali	—	0	1	0	5	0	0	0	0	7
Mauritania	—	—	1	0	2	0	0	0	0	3
Mozambique	—	1	1	0	3	0	0	0	0	5
Namibia	0	15	—	2	41	0	0	0	7	69
Niger	0	0	—	0	2	0	0	0	1	1
Nigeria	0	1	1	0	2	0	0	0	0	3
Rwanda	0	1	1	0	6	0	0	0	0	5
Senegal	0	0	25	6	48	0	1	21	32	69
South Africa	—	24	—	2	43	0	0	3	36	83
Sudan	—	—	—	—	—	—	—	—	—	—
Tanzania	0	0	1	0	5	0	0	0	0	6
Togo	—	0	—	0	0	0	0	0	0	0
Uganda	0	—	1	0	5	0	0	0	0	3
Zambia	0	0	3	0	8	0	0	0	4	12
Zimbabwe	0	6	—	1	19	0	3	1	6	22
Income group										
Low income	0	1	2	0	7	0	0	1	1	10
Middle income	18	17	17	2	31	0	0	2	23	62
Urbanization										
Low	0	0	2	0	11	0	0	0	0	9
Medium	0	2	3	0	7	0	0	0	1	8
High	5	6	7	1	14	0	0	2	8	25
Region										
East	0	1	2	0	12	0	0	0	0	11
West	0	1	3	1	6	0	0	1	2	9
South	11	10	10	1	26	0	0	1	14	37
Central	1	1	3	0	10	0	1	1	2	17
Overall	2	3	4	0	12	0	0	1	4	16

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.13 Access, hook-up, coverage of piped supply (latest available year), urban areas

Country	Access	Hook-up	Coverage	Unserved Population	Pure demand side gap	Supply side gap	Pure supply side gap	Mixed demand and supply side gap	Share of deficit attributable to demand side factors only	Share of deficit attributable to supply side factors only	Share of deficit attributable to both supply and demand side factors
Benin	81	75	60	40	21	19	14	5	52	36	12
Burkina Faso	87	38	33	67	54	13	5	8	81	7	12
Cameroon	80	30	24	76	56	20	6	14	74	8	18
C. African Rep	39	16	6	94	33	61	10	51	35	10	55
Chad	68	32	22	78	47	32	10	22	60	13	28
Comoros	81	53	43	57	38	19	10	9	66	18	16
Congo, Rep	91	51	46	54	45	9	4	4	84	8	8
Côte d'Ivoire	96	67	65	35	32	4	2	1	90	7	3
Ethiopia	88	55	48	52	40	12	6	5	78	12	10
Gabon	96	57	55	45	41	4	2	2	91	5	4
Ghana	72	47	34	66	38	28	13	15	58	20	22
Guinea	78	36	28	72	50	22	8	14	70	11	19
Kenya	78	64	50	50	28	22	14	8	57	28	16
Lesotho	94	53	50	50	44	6	3	3	89	6	5
Madagascar	65	26	17	83	48	35	9	25	58	11	31
Malawi	85	38	32	68	53	15	6	9	78	8	14
Mali	75	39	29	71	46	25	10	15	65	14	22
Mauritania	75	37	28	72	48	25	9	16	66	12	22
Mozambique	55	36	20	80	35	45	16	29	44	20	36
Namibia	91	87	79	21	12	9	8	1	56	39	6
Niger	89	35	31	69	58	11	4	7	85	5	10
Nigeria	53	29	15	85	37	47	14	33	44	16	40
Rwanda	56	29	16	84	40	44	13	32	47	15	37
Senegal	98	78	77	23	22	2	1	0	93	5	1
South Africa	94	93	88	12	6	6	5	0	52	45	3
Tanzania	65	34	22	78	43	35	12	23	55	15	30
Togo	93	55	51	49	42	7	4	3	86	8	6
Uganda	65	22	14	86	51	35	8	27	59	9	32
Zambia	78	60	46	54	31	22	13	9	58	25	17
Zimbabwe	100	93	93	7	7	0	0	0	100	0	0
Overall	73	48	38	62	34	27	10	18	59	18	23
Income group											
Low income	68	42	31	69	37	32	11	21	58	15	27
Middle income	91	74	69	31	22	9	5	4	61	32	7
Urbanization											
Low	76	42	33	67	43	24	9	15	65	14	21
Medium	76	56	46	54	30	24	10	14	63	17	20
High	71	49	34	61	32	29	10	19	55	20	24
Region											
East	76	46	36	64	40	24	10	14	64	16	20
West	65	39	28	72	37	35	11	24	56	15	29
South	84	72	65	35	20	16	8	8	58	30	12
Central	78	34	28	72	50	22	6	16	71	9	20

Source: AICD DHS/MICS Database, 2007.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.14 Adjusted access, hook-up, coverage of piped supply (latest available year), urban areas

Country	Access	Hook-up	Coverage	Unserved Population	Pure demand side gap	Supply side gap	Pure supply side gap	Mixed demand and supply side gap	Share of deficit attributable to demand side factors only	Share of deficit attributable to supply side factors only	Share of deficit attributable to both supply and demand side factors
Benin	81	85	60	40	9	31	26	5	22	67	12
Burkina Faso	87	40	33	67	2	65	26	39	3	39	58
Cameroon	80	49	24	76	15	61	30	31	20	39	41
C. African Rep	39	24	6	94	3	90	22	68	3	23	73
Chad	68	34	22	78	2	77	26	51	2	33	65
Comoros	81	69	43	57	13	44	31	14	23	53	24
Congo, Rep	91	93	46	54	38	15	14	1	71	26	2
Cote d'Ivoire	96	99	65	35	31	5	5	0	87	13	0
Ethiopia	88	57	48	52	2	50	28	21	4	55	42
Gabon	96	98	55	45	39	6	6	0	86	13	0
Ghana	72	66	34	66	14	52	35	18	21	52	27
Guinea	78	42	28	72	5	67	28	39	6	39	54
Kenya	78	70	50	50	5	45	32	14	10	63	27
Lesotho	94	68	50	50	14	36	24	11	28	49	23
Madagascar	65	32	17	83	4	79	25	54	5	31	65
Malawi	85	44	32	68	5	63	27	35	8	40	52
Mali	75	48	29	71	6	64	31	34	9	43	48
Mauritania	75	50	28	72	10	62	31	31	14	43	43
Mozambique	55	42	20	80	3	77	32	44	4	40	55
Namibia	91	95	79	21	7	14	13	1	31	65	4
Niger	89	40	31	69	4	65	26	39	6	37	57
Nigeria	53	38	15	85	4	80	30	50	5	36	59
Rwanda	56	34	16	84	3	81	27	54	3	33	64
Senegal	98	92	77	23	13	10	9	1	57	39	4
South Africa	94	98	88	12	5	8	8	0	37	62	1
Tanzania	65	38	22	78	3	75	29	46	4	37	59
Togo	93	67	51	49	11	38	25	13	22	52	26
Uganda	65	24	14	86	1	85	20	65	1	23	76
Zambia	78	98	46	54	29	24	24	1	55	44	1
Zimbabwe	100	96	93	7	3	4	4	0	44	54	2
Overall	73	58	38	62	8	54	24	30	19	42	39
Income group											
Low income	68	51	31	69	7	62	27	35	14	40	46
Middle income	91	86	69	31	10	21	13	8	36	53	11
Urbanization											
Low	80	61	41	59	9	50	26	24	20	45	36
Medium	59	42	22	78	5	74	29	45	8	37	55
High	96	87	72	28	12	16	11	5	45	47	9
Region											
East	76	50	36	64	3	61	28	33	5	47	48
West	65	50	28	72	8	64	27	37	16	38	46
South	84	80	65	35	6	29	15	14	30	52	18
Central	78	54	28	72	17	55	25	31	28	33	39

Source: AICD DHS/MICS Database, 2007.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.15 Access, hook-up, coverage of flush toilet (latest available year), urban areas

Country	Access	Hook-up	Coverage	Unserved Population	Pure demand side gap	Supply side gap	Pure supply side gap	Mixed demand and supply side gap	Share of deficit attributable to demand side factors only	Share of deficit attributable to supply side factors only	Share of deficit attributable to both supply and demand side factors
Benin	41	15	6	94	35	59	9	50	37	9	54
Burkina Faso	61	14	8	92	52	39	5	34	57	6	37
Cameroon	69	23	16	84	53	31	7	24	63	8	28
C. African Rep	22	11	2	98	19	78	9	69	20	9	71
Chad	37	19	7	93	30	63	12	51	32	13	55
Comoros	63	12	8	92	55	37	4	33	60	5	35
Congo, Rep	75	13	10	90	65	25	3	22	72	4	24
Côte d'Ivoire	81	37	30	70	51	19	7	12	72	10	17
Ethiopia	48	17	8	92	40	52	9	43	43	9	47
Gabon	95	33	32	68	63	5	2	3	92	3	5
Ghana	63	36	23	77	40	37	13	24	52	17	31
Guinea	42	18	8	92	35	58	10	48	37	11	51
Kenya	72	54	39	61	33	28	15	13	55	25	21
Lesotho	46	18	8	92	38	54	10	44	41	11	48
Madagascar	53	13	7	93	47	47	6	41	50	6	44
Malawi	69	26	18	82	51	31	8	23	62	10	28
Mali	60	24	15	85	45	40	10	30	53	12	36
Mauritania	35	12	4	96	31	65	8	58	32	8	60
Mozambique	40	20	8	92	32	60	12	48	35	13	52
Namibia	91	86	79	21	12	9	8	1	58	37	6
Niger	32	14	5	95	28	68	10	58	29	10	61
Nigeria	76	36	28	72	48	24	9	15	67	12	21
Rwanda	41	15	6	94	35	59	9	50	37	10	53
Senegal	98	66	65	35	34	2	1	1	95	3	2
South Africa	87	92	80	20	7	13	12	1	33	62	5
Tanzania	53	19	10	90	43	47	9	38	48	10	42
Togo	—	—	—	—	—	—	—	—	—	—	—
Uganda	50	21	11	89	39	50	11	39	44	12	44
Zambia	71	66	47	53	24	29	19	10	45	36	19
Zimbabwe	100	95	95	5	5	0	0	0	100	0	0
Overall	69	40	31	69	38	31	9	22	56	18	26
Income group											
Low income	66	34	24	76	42	34	9	25	58	12	30
Middle income	82	68	58	42	23	18	10	8	45	43	12
Urbanization											
Low	54	23	13	87	40	46	10	37	47	12	41
Medium	57	42	33	68	25	43	10	32	49	14	36
High	78	47	14	62	40	22	9	13	60	21	18
Region											
East	54	26	15	85	39	46	10	35	47	13	40
West	72	35	26	74	46	28	9	19	64	12	25
South	76	68	57	43	18	24	11	14	44	38	18
Central	63	21	13	87	49	37	7	30	58	8	34

Source: AICD DHS/MICS Database, 2007.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.16 Access, hook-up, coverage of electricity (latest available year), urban areas

Country	Access	Hook-up	Coverage	Unserved Population	Pure demand side gap	Supply side gap	Pure supply side gap	Mixed demand and supply side gap	Share of deficit attributable to demand side factors only	Share of deficit attributable to supply side factors only	Share of deficit attributable to both supply and demand side factors
Benin	83	61	51	49	32	17	11	7	65	21	13
Burkina Faso	92	58	54	46	38	8	5	3	83	10	7
Cameroon	94	82	77	23	17	6	5	1	74	21	5
C. Afr. Rep	57	19	11	89	46	43	8	34	52	9	39
Chad	77	26	20	80	58	23	6	17	72	7	21
Comoros	100	54	54	46	46	0	0	0	100	0	0
Congo, Rep	98	52	51	49	47	2	1	1	96	2	2
Côte d'Ivoire	100	90	90	10	10	0	0	0	100	0	0
Ethiopia	99	87	86	14	13	1	1	0	92	7	1
Gabon	100	91	91	9	9	0	0	0	100	0	0
Ghana	98	79	77	23	21	2	2	1	90	8	2
Guinea	89	72	63	37	25	11	8	3	69	23	9
Kenya	80	64	51	49	29	20	13	7	59	27	15
Lesotho	87	32	28	72	59	13	4	9	82	6	12
Madagascar	80	65	52	48	28	20	13	7	58	27	15
Malawi	84	40	34	66	50	16	6	9	76	10	14
Mali	81	51	41	59	40	19	9	9	68	16	16
Mauritania	85	60	51	49	34	15	9	6	69	18	12
Mozambique	80	37	30	70	50	20	7	13	71	11	18
Namibia	93	80	75	25	18	7	6	1	72	22	5
Niger	94	43	41	59	53	6	3	4	90	5	6
Nigeria	98	86	84	16	14	2	2	0	86	12	2
Rwanda	72	37	27	73	45	28	10	17	62	14	24
Senegal	99	82	82	18	17	1	0	0	97	2	1
South Africa	95	91	86	14	8	5	5	0	60	37	3
Tanzania	83	47	39	61	45	17	8	9	73	13	14
Togo	96	46	44	56	51	4	2	2	92	3	4
Uganda	93	51	47	53	46	7	3	3	87	7	6
Zambia	84	59	50	50	34	16	9	6	69	19	13
Zimbabwe	100	90	90	10	10	0	0	0	100	0	0
Overall	93	75	71	29	22	7	4	3	79	15	6
Income group											
Low income	93	73	69	31	24	7	4	3	82	12	6
Middle income	95	86	81	19	13	5	5	1	67	29	4
Urbanization											
Low	87	60	53	47	34	13	7	6	75	14	11
Medium	86	58	52	48	34	14	6	8	76	13	12
High	97	85	53	17	14	3	3	0	81	16	2
Region											
East	89	65	59	41	30	11	6	5	77	13	9
West	96	80	78	22	18	4	3	1	86	11	3
South	90	75	69	31	21	10	6	4	67	26	8
Central	90	64	60	40	30	10	4	6	77	14	9

Source: AICD DHS/MICS Database, 2007.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.17 Adjusted access, hook-up, coverage of electricity (latest available year), urban areas

Country	Access	Hook-up	Coverage	Unserved Population	Pure demand side gap	Supply side gap	Pure supply side gap	Mixed demand and supply side gap	Share of deficit attributable to demand side factors only	Share of deficit attributable to supply side factors only	Share of deficit attributable to both supply and demand side factors
Benin	83	83	51	49	18	31	26	5	36	53	11
Burkina Faso	92	62	54	46	3	43	27	16	7	57	35
Cameroon	94	98	77	23	15	8	8	0	65	34	1
C. Afr. Rep.	57	33	11	89	8	81	27	54	9	30	61
Chad	77	28	20	80	1	79	22	57	2	27	71
Comoros	100	82	54	46	28	18	15	3	61	32	7
Congo, Rep	98	86	51	49	33	16	13	2	68	27	4
Côte d'Ivoire	100	99	90	10	10	1	1	0	93	7	0
Ethiopia	99	90	86	14	3	11	10	1	20	72	8
Gabon	100	99	91	9	9	1	1	0	94	6	0
Ghana	98	95	77	23	15	8	7	0	67	31	2
Guinea	89	78	63	37	6	31	24	7	16	66	18
Kenya	80	72	51	49	6	42	31	12	13	63	24
Lesotho	87	42	28	72	8	64	27	37	12	37	51
Madagascar	80	86	52	48	16	32	27	5	34	56	10
Malawi	84	48	34	66	7	59	29	31	10	43	47
Mali	81	62	41	59	9	49	31	19	16	52	32
Mauritania	85	84	51	49	20	29	24	5	41	49	10
Mozambique	80	51	30	70	11	59	30	29	16	43	41
Namibia	93	99	75	25	17	8	8	0	69	31	0
Niger	94	49	41	59	6	54	26	27	9	45	46
Nigeria	98	98	84	16	12	4	4	0	73	26	1
Rwanda	72	46	27	73	6	67	31	36	8	42	49
Senegal	99	100	82	18	17	1	1	0	95	5	0
South Africa	95	100	86	14	8	6	6	0	58	42	0
Tanzania	83	55	39	61	7	54	30	25	11	49	40
Togo	96	66	44	56	19	37	24	12	34	44	22
Uganda	93	58	47	53	6	46	27	20	12	51	37
Zambia	84	84	50	50	21	29	24	5	42	49	9
Zimbabwe	100	99	90	10	8	2	1	0	85	15	0
Overall	93	87	71	29	11	18	12	6	52	37	11
Income group											
Low income	93	84	69	31	11	21	13	7	50	37	13
Middle income	95	98	81	19	11	7	7	1	61	38	1
Urbanization											
Low	87	67	53	47	6	41	24	17	15	56	29
Medium	86	73	52	48	13	35	22	14	37	42	21
High	97	98	83	17	12	5	5	0	71	28	1
Region											
East	89	71	59	41	5	36	23	14	15	60	26
West	96	93	78	22	12	10	8	2	67	29	5
South	90	87	69	31	10	20	14	7	48	41	10
Central	69	80	60	40	15	25	12	13	53	30	17

ANNEX 1 CROSS-COUNTRY TABLES

Source: AICD DHS/MICS Database, 2007.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.2.18 Access, hook-up, coverage of landline telephones (latest available year), urban areas

Country	Access	Hook-up	Coverage	Unserved Population	Pure demand side gap	Supply side gap	Pure supply side gap	Mixed demand and supply side gap	Share of deficit attributable to demand side factors only	Share of deficit attributable to supply side factors only	Share of deficit attributable to both supply and demand side factors
Benin	59	17	10	90	49	41	7	34	55	8	37
Burkina Faso	85	23	20	80	65	15	3	11	82	4	14
Cameroon	42	11	5	95	37	58	7	52	39	7	54
C. African Rep	26	13	3	97	23	74	10	64	24	10	66
Chad	37	11	4	96	33	63	7	56	34	8	58
Comoros	67	14	9	91	57	33	5	29	63	5	32
Congo, Rep	36	6	2	98	34	64	4	60	35	4	61
Côte d'Ivoire	57	26	15	85	43	43	11	32	50	13	37
Ethiopia	84	42	35	65	49	16	7	9	75	10	14
Gabon	87	23	20	80	67	13	3	10	84	4	12
Ghana	59	29	17	83	42	41	12	29	51	14	35
Guinea	78	30	24	76	55	22	7	15	71	9	20
Kenya	94	40	37	63	57	6	2	4	91	4	6
Lesotho	99	46	46	54	53	1	1	1	98	1	1
Madagascar	55	22	12	88	43	45	10	35	49	11	40
Malawi	90	30	27	73	63	10	3	7	86	4	10
Mali	58	22	13	87	45	42	9	33	52	11	37
Mauritania	54	15	8	92	46	46	7	40	50	8	43
Mozambique	42	14	6	94	36	58	8	49	39	9	53
Namibia	89	49	44	56	46	11	5	6	81	9	10
Niger	37	13	5	95	32	63	8	55	34	9	58
Nigeria	63	18	12	88	52	37	7	30	58	8	34
Rwanda	39	16	6	94	33	61	10	52	35	10	55
Senegal	98	37	36	64	62	2	1	1	97	1	2
South Africa	82	56	45	55	36	18	10	8	66	19	15
Tanzania	88	36	31	69	56	12	4	8	82	6	11
Togo	—	—	—	—	—	—	—	—	—	—	—
Uganda	79	24	18	82	60	21	5	16	74	6	20
Zambia	60	19	11	89	49	40	7	33	55	8	37
Zimbabwe	80	24	19	81	61	20	5	15	75	6	19
Overall	68	27	20	80	47	32	7	25	61	9	29
Income group											
Low income	67	24	17	83	50	33	7	26	62	8	30
Middle income	70	41	32	68	37	30	9	22	59	14	27
Urbanization											
Low	76	31	25	75	51	24	6	18	70	8	22
Medium	60	20	13	87	47	40	7	33	55	8	37
High	66	27	25	81	46	34	8	27	59	10	31
Region											
East	84	37	31	69	53	16	5	11	78	7	15
West	64	21	14	86	50	36	7	28	59	8	32
South	72	39	30	70	42	28	9	19	62	14	25
Central	42	11	5	95	37	58	6	52	39	7	54

Source: AICD DHS/MICS Database, 2007.

Part 3 Expenditure on infrastructure services

Table A1.3.1 Total household monthly budget

Table A1.3.2 Food expenditure budget and share in household budget

Table A1.3.3 Water expenditure budget and share in household budget

Table A1.3.4 Electricity expenditure budget and share in household budget

Table A1.3.5 Kerosene expenditure budget and share in household budget

Table A1.3.6 LPG expenditure budget and share in household budget

Table A1.3.7 Wood/charcoal expenditure budget and share in household budget

Table A1.3.8 Transport expenditure budget and share in household budget

Table A1.3.9 Refuse disposal expenditure budget and share in household budget

Table A1.3.10 Landline Telephone expenditure budget and share in household budget

Table A1.3.11 Cell-phone expenditure budget and share in household budget

Table A1.3.12 All infrastructure expenditure budget and share in household budget

Table A1.3.13 Affordability analysis at continental level

Table A1.3.14 Affordability analysis at country level

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.1 Total household monthly budget (2002 US\$)

Country	Year	National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5
Angola	2000	220	245	63	38	94	149	224	501
Benin	2002	88	74	108	41	59	71	85	137
Burkina Faso	2003	121	102	197	48	67	85	111	222
Burundi	1998	66	59	209	18	37	50	69	122
Cameroon	2004	112	99	163	48	70	88	115	186
Cape Verde	2001	123	84	177	63	81	99	106	185
Chad	2001	335	206	433	97	152	214	298	654
Congo, Dem Rep	2005	110	97	146	45	68	88	111	184
Congo, Rep	2002	216	138	313	70	116	149	191	400
Côte d'Ivoire	2005	229	164	279	83	139	181	239	398
Ethiopia	2000	57	53	82	32	42	50	60	87
Gabon	2005	446	259	492	95	318	427	500	632
Ghana	1999	169	138	222	64	109	142	184	254
Guinea-Bissau	2005	149	137	176	72	102	118	146	252
Kenya	1997	140	116	231	55	81	103	137	231
Madagascar	2001	282	236	425	93	139	184	261	576
Malawi	2003	70	61	130	33	44	54	67	119
Mauritania	2000	224	175	294	92	135	184	232	378
Morocco	2003	444	310	544	159	267	377	535	1,052
Mozambique	2003	65	45	113	23	33	43	55	143
Niger	2005	123	106	208	49	70	88	115	229
Nigeria	2003	86	72	102	30	52	69	89	143
Rwanda	1998	101	76	331	30	50	66	92	241
Sao Tome Prin	2000	210	156	254	75	108	132	175	420
Senegal	2001	227	154	315	102	134	166	225	394
Sierra Leone	2003	108	82	161	43	65	84	111	251
South Africa	2000	539	258	697	81	140	191	299	1,305
Tanzania	2000	60	53	86	28	40	50	62	92
Uganda	2002	80	68	137	26	47	67	99	232
Zambia	2002	99	80	135	37	58	74	95	182
Overall		177	130	241	59	97	128	169	340
Income group									
Low income		139	109	208	53	80	103	135	258
Middle income		300	199	350	79	155	211	282	609
Urbanization									
Low		132	106	220	48	73	94	126	255
Medium		94	76	133	38	57	72	91	180
High		250	173	301	77	136	181	240	480
Region									
East		84	71	179	31	50	64	86	168
West		177	135	234	71	107	138	181	332
South		201	145	255	56	88	118	167	434
Central		244	160	309	71	145	193	243	411

Source: AICD Expenditure Survey Database, 2007.

* Sample average.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.2 Food expenditure budget and share in household budget

Country	Year	Expenditure budget (2002 US\$)							Share in household budget (%)							
		National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5	National	Rural	Urban	Q1	Q2	Q3	Q4
Angola	2000	102	112	37	22	56	85	121	194	46	46	59	58	59	57	54
Benin	2002	48	45	54	26	38	44	51	66	55	61	50	62	64	62	60
Burkina Faso	2003	58	55	70	33	44	53	62	80	48	54	36	68	66	62	56
Burundi	1998	47	45	91	13	29	39	54	81	72	77	43	72	77	78	78
Cameroon	2004	69	65	85	31	46	58	76	106	62	66	52	64	66	66	57
Cape Verde	2001	62	59	68	43	52	61	61	75	51	69	38	68	65	62	57
Congo, Dem Rep	2005	79	64	117	33	50	65	83	126	71	67	80	73	74	74	75
Congo, Rep	2002	60	40	85	20	39	49	63	96	28	29	27	29	34	33	24
Gabon	2005	175	150	181	34	164	202	215	205	39	58	37	36	51	47	43
Ghana	1999	94	83	113	41	67	85	105	131	56	60	51	64	62	60	57
Guinea-Bissau	2005	81	72	103	35	55	65	81	138	54	52	59	49	54	55	55
Kenya	1997	87	81	109	42	62	77	97	119	62	70	47	77	76	75	71
Madagascar	2001	173	157	220	69	106	135	184	294	61	67	52	74	76	74	70
Malawi	2003	39	37	59	20	27	33	40	61	57	60	45	62	62	61	51
Mauritania	2000	114	88	150	55	79	102	125	169	51	50	51	60	58	55	54
Morocco	2003	191	168	209	84	138	183	237	375	43	54	38	53	52	48	44
Niger	2005	84	78	112	31	47	61	79	155	68	73	54	63	67	69	68
Nigeria	2003	43	42	45	17	32	42	50	59	50	57	44	56	61	61	57
Rwanda	1998	57	51	116	22	37	47	61	108	57	67	35	72	73	72	67
Sao Tome Prin	2000	127	110	141	58	81	95	120	217	61	71	55	78	76	72	69
Sierra Leone	2003	55	52	61	27	42	52	61	97	51	63	38	62	64	61	55
Tanzania	2000	39	36	51	20	29	36	42	56	66	69	59	72	71	71	69
Zambia	2002	62	60	67	26	42	54	67	99	63	75	50	71	72	70	54
Overall		85	76	102	35	59	75	93	135	55	61	48	63	64	63	60
Income group																
Low income		76	68	99	33	51	64	80	121	59	64	50	67	68	66	64
Middle income		110	99	111	39	83	106	129	175	45	54	42	51	55	52	50
Urbanization																
Low		74	68	103	32	48	61	78	122	61	65	48	68	69	69	66
Medium		61	55	75	28	43	54	65	97	60	66	54	67	69	66	65
High		104	92	111	40	75	96	117	163	49	56	45	56	58	56	53
Region																
East		58	53	92	24	39	50	64	91	64	71	46	73	74	74	71
West		87	77	102	41	61	77	94	142	53	60	47	62	63	61	58
South		94	91	96	34	58	77	103	162	57	62	51	66	68	64	64
Central		96	80	117	30	75	94	109	133	50	55	49	50	56	55	54

Source: AICD Expenditure Survey Database, 2007.

* Sample average.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.3 Water expenditure budget and share in household budget

Country	Year	Expenditure budget (2002 US\$)										Share in household budget (%)					
		National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5
Angola	2000	1	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0
Benin	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burkina Faso	2003	0	2	0	2	2	2	0	0	0	2	0	5	3	3	0	0
Burundi	1998	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cameroon	2004	7	10	5	1	2	2	3	10	6	10	3	2	2	2	2	5
Cape Verde	2001	2	1	2	2	2	2	2	2	2	1	1	3	2	2	2	1
Chad	2001	9	4	11	3	4	6	8	14	3	2	3	3	3	3	3	2
Congo, Dem Rep	2005	2	1	3	1	1	1	2	3	2	1	2	2	2	1	2	2
Congo, Rep	2002	2	1	4	1	1	2	2	4	1	1	1	1	1	1	1	1
Côte d'Ivoire	2005	4	2	4	3	4	4	4	5	2	1	2	3	3	2	2	1
Ethiopia	2000	1	1	1	1	1	1	1	1	1	2	1	2	2	2	1	1
Gabon	2005	11	6	11	1	8	9	13	12	2	2	2	1	2	2	3	2
Ghana	1999	1	0	2	0	1	1	1	2	1	0	1	0	1	0	0	1
Guinea-Bissau	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kenya	1997	2	1	3	1	1	1	2	3	2	1	1	2	2	1	1	1
Madagascar	2001	1	1	1	3	0	1	1	1	0	0	0	4	0	0	0	0
Malawi	2003	0	0	3	0	0	0	0	1	1	0	3	0	0	0	0	1
Mauritania	2000	11	5	14	1	5	11	10	14	5	3	5	2	4	6	4	4
Morocco	2003	9	4	10	5	6	8	9	14	2	1	2	3	2	2	2	1
Mozambique	2003	3	2	3	1	1	1	2	5	4	4	3	4	3	3	3	3
Niger	2005	5	4	7	2	3	4	5	7	4	4	3	5	4	4	5	3
Nigeria	2003	1	1	1	1	1	1	1	2	2	2	1	4	2	2	1	1
Rwanda	1998	8	4	8	1	1	1	9	8	6	3	3	2	2	4	4	4
Sao Tome Prin	2000	5	0	10	0	0	1	1	18	3	0	4	0	0	1	0	4
Senegal	2001	4	2	5	2	2	3	4	6	2	1	2	2	2	2	2	2
Sierra Leone	2003	2	1	2	0	0	2	2	2	1	1	1	0	0	3	2	1
South Africa	2000	6	1	8	1	1	2	4	13	1	0	1	1	1	1	1	1
Tanzania	2000	2	2	1	1	2	2	2	2	3	5	1	3	5	4	3	2
Uganda	2002	3	2	3	1	1	2	2	5	3	3	2	4	3	3	2	2
Zambia	2002	2	0	3	1	1	1	1	4	2	1	2	2	1	1	1	2
Overall		4	2	5	1	2	3	3	6	2	2	2	2	2	2	2	2
Income group																	
Low income		3	2	4	1	2	2	3	5	2	2	2	2	2	2	2	2
Middle income		5	3	6	1	3	4	5	8	2	2	2	1	2	2	2	2
Urbanization																	
Low		3	2	4	2	2	2	2	4	3	2	2	3	2	2	2	2
Medium		2	1	3	1	1	1	2	3	3	2	2	2	2	2	2	2
High		5	3	6	1	3	3	4	8	2	2	2	2	2	2	2	2
Region																	
East		3	2	3	1	1	1	2	4	3	3	2	3	3	2	2	2
West		4	2	5	2	2	4	4	6	2	2	2	2	2	2	2	2
South		2	1	3	1	1	1	1	4	2	1	1	2	1	1	1	1
Central		6	4	7	1	3	4	6	9	3	3	2	2	2	2	2	2

Source: AICD Expenditure Survey Database, 2007.

* Sample average.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.4 Electricity expenditure budget and share in household budget

Country	Year	Expenditure budget (2002 US\$)										Share in household budget (%)										
		National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5					
Angola	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Benin	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Burkina Faso	2003	4	11	1	12	10	8	6	2	3	10	1	25	15	9	5	1	—	—	—	—	—
Burundi	1998	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cameroon	2004	1	1	1	1	0	0	1	2	1	1	1	3	0	0	1	1	1	—	—	—	—
Cape Verde	2001	2	2	3	2	2	2	2	3	2	2	1	3	2	2	2	2	1	—	—	—	—
Chad	2001	13	5	15	3	5	8	12	18	4	3	3	3	4	4	4	4	3	—	—	—	—
Congo, Dem Rep	2005	2	1	2	1	1	1	2	3	2	1	2	2	2	2	2	2	2	—	—	—	—
Congo, Rep	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Côte d'Ivoire	2005	7	5	7	3	5	7	7	9	3	3	3	3	4	3	2	—	—	—	—	—	—
Ethiopia	2000	2	0	2	1	1	1	1	3	3	1	2	2	2	2	2	2	3	—	—	—	—
Gabon	2005	20	9	21	2	13	17	21	27	4	4	4	2	4	4	4	4	4	—	—	—	—
Ghana	1999	5	4	6	1	4	3	5	6	3	3	3	2	4	2	3	2	2	—	—	—	—
Guinea-Bissau	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kenya	1997	8	6	8	0	1	1	2	9	5	6	3	1	2	1	1	1	4	—	—	—	—
Madagascar	2001	2	2	2	0	0	1	2	2	1	1	0	0	0	1	1	0	—	—	—	—	—
Malawi	2003	10	7	11	1	1	3	4	12	14	12	9	3	1	6	6	10	—	—	—	—	—
Mauritania	2000	15	4	16	3	20	10	12	18	7	2	5	4	15	6	5	5	5	—	—	—	—
Morocco	2003	14	8	15	6	9	12	15	23	3	2	3	4	3	3	3	2	2	—	—	—	—
Mozambique	2003	13	6	14	3	6	6	9	15	20	12	12	15	17	13	16	10	—	—	—	—	—
Niger	2005	12	9	12	4	5	7	6	14	10	8	6	7	7	8	5	6	6	—	—	—	—
Nigeria	2003	5	4	5	5	4	4	5	5	6	5	5	15	9	6	5	4	4	—	—	—	—
Rwanda	1998	10	5	11	—	—	1	4	11	10	7	3	—	—	1	4	4	4	—	—	—	—
Sao Tome Prin	2000	26	8	40	1	2	4	7	82	12	5	16	1	2	3	4	19	—	—	—	—	—
Senegal	2001	9	6	10	4	5	6	8	11	4	4	3	4	4	4	3	3	3	—	—	—	—
Sierra Leone	2003	9	6	9	0	1	2	5	12	8	7	6	0	2	3	4	5	—	—	—	—	—
South Africa	2000	12	5	16	2	4	6	9	26	2	2	2	2	3	3	3	2	—	—	—	—	—
Tanzania	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uganda	2002	6	5	6	1	2	2	4	9	7	7	5	5	4	4	4	4	4	—	—	—	—
Zambia	2002	5	4	5	1	1	2	4	7	5	5	4	3	2	3	4	4	4	—	—	—	—
Overall		9	5	10	3	4	5	6	14	6	5	4	5	5	4	4	4	4	—	—	—	—
Income group																						
Low income		9	5	10	2	4	4	5	13	7	5	5	5	5	4	4	5	5	—	—	—	—
Middle income		10	5	11	3	6	7	10	16	3	2	2	3	3	3	3	2	2	—	—	—	—
Urbanization																						
Low		7	6	8	3	3	4	5	9	6	6	4	6	4	4	4	4	4	—	—	—	—
Medium		7	4	8	1	2	3	5	9	9	6	6	5	6	5	7	5	5	—	—	—	—
High		11	5	13	3	6	7	8	19	4	3	4	4	4	3	3	3	4	—	—	—	—
Region																						
East		6	4	7	1	1	1	3	8	6	5	3	3	2	2	3	4	—	—	—	—	—
West		10	6	11	4	6	6	7	17	6	5	5	6	5	4	5	5	5	—	—	—	—
South		8	5	10	1	2	4	6	12	9	6	5	5	5	5	6	5	5	—	—	—	—
Central		9	4	10	2	5	7	9	12	3	2	3	3	2	2	2	3	2	—	—	—	—

Source: AICD Expenditure Survey Database, 2007.

* Sample average.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.5 Kerosene expenditure budget and share in household budget

Country	Year	Expenditure budget (2002 US\$)							Share in household budget (%)								
		National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5
Angola	2000																
Benin	2002	2	2	2	2	2	2	2	2	2	3	2	5	4	3	2	2
Burkina Faso	2003	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1
Burundi	1998	1	1	4	1	1	1	2	2	2	2	2	4	3	2	2	2
Cameroon	2004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cape Verde	2001	2	1	2	1	1	1	2	2	1	2	1	2	2	1	1	1
Chad	2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congo, Dem Rep	2005	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Congo, Rep	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Côte d'Ivoire	2005	3	3	4	2	3	3	3	4	1	2	1	3	2	2	1	1
Ethiopia	2000	1	0	1	0	0	0	1	1	1	1	1	1	1	1	1	1
Gabon	2005	4	6	3	5	5	4	4	4	1	2	1	5	1	1	1	1
Ghana	1999	4	3	5	2	3	2	7	3	2	2	2	3	3	2	4	1
Guinea-Bissau	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kenya	1997	2	1	4	1	1	2	2	3	1	1	2	2	2	2	2	1
Madagascar	2001	3	2	4	0	0	0	11	3	1	1	1	0	0	0	4	1
Malawi	2003	2	1	13	1	1	1	1	6	3	2	10	2	2	2	2	5
Mauritania	2000	1	2	1	0	1	2	2	1	1	1	0	0	1	1	1	0
Morocco	2003	3	3	2	3	3	4	4	5	1	1	0	2	1	1	1	0
Mozambique	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Niger	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nigeria	2003	3	3	4	2	2	3	3	4	4	3	4	6	4	4	4	3
Rwanda	1998	1	1	2	1	1	1	1	2	1	2	1	2	2	2	1	1
Sao Tome Prin	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Senegal	2001	1	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0
Sierra Leone	2003	3	2	3	2	2	2	3	4	2	3	2	4	3	3	3	1
South Africa	2000	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Tanzania	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uganda	2002	1	1	1	1	1	1	1	2	1	2	1	2	2	2	1	1
Zambia	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Overall		2	2	3	1	2	2	3	3	1	2	2	2	2	2	2	1
Income group																	
Low income		2	2	3	1	1	2	3	0	2	2	2	3	2	2	2	0
Middle income		2	3	2	2	2	2	2	3	1	1	1	2	1	1	1	1
Urbanization																	
Low		2	1	4	1	1	1	3	3	2	2	2	2	2	1	2	1
Medium		2	2	2	1	2	2	2	0	2	2	2	3	3	2	2	0
High		2	3	2	2	2	2	3	3	1	2	1	2	2	1	2	1
Region																	
East		1	1	2	1	1	1	1	2	1	2	1	2	2	2	2	1
West		2	2	3	2	2	2	3	3	2	2	1	3	2	2	2	1
South		2	1	6	0	0	0	4	4	2	1	4	1	1	1	2	2
Central		3	4	2	3	3	2	2	3	1	2	1	3	1	1	1	1

Source: AICD Expenditure Survey Database, 2007.

* Sample average.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.6 LPG expenditure budget and share in household budget

Country	Year	Expenditure budget (2002 US\$)										Share in household budget (%)									
		National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5				
Angola	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Benin	2002	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0			
Burkina Faso	2003	5	5	5	5	5	5	5	5	5	4	5	2	10	7	5	4	2			
Burundi	1998	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cameroon	2004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cape Verde	2001	3	2	3	1	2	3	3	3	2	3	2	2	3	3	3	3	2			
Chad	2001	13	12	13	7	9	11	13	15	4	6	3	7	6	5	4	2				
Congo	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congo, Dem Rep	2005	1	0	2	1	0	0	0	1	1	0	1	2	0	0	0	0	1			
Côte d'Ivoire	2005	5	4	5	2	3	4	5	5	2	3	2	2	2	2	2	1				
Ethiopia	2000	1	0	1	1	0	0	0	2	1	0	2	3	1	0	0	0	2			
Gabon	2005	11	11	11	9	11	11	11	10	2	4	2	10	3	3	2	2				
Ghana	1999	6	5	6	—	—	3	6	6	4	4	3	—	—	2	3	2				
Guinea-Bissau	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kenya	1997	14	11	14	—	—	2	9	14	10	10	6	—	—	2	7	6				
Madagascar	2001	6	6	6	—	8	—	14	5	2	3	1	—	6	—	5	1				
Malawi	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mauritania	2000	2	1	4	0	1	2	3	4	1	1	1	0	1	1	1	1	1			
Morocco	2003	10	9	11	6	8	10	13	16	2	3	2	4	3	3	2	2	2			
Mozambique	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Niger	2005	8	2	10	1	1	1	2	10	6	2	5	2	1	1	2	4				
Nigeria	2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Rwanda	1998	3	1	20	0	1	1	1	7	3	1	6	1	1	1	1	1	3			
Sao Tome Prin	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Senegal	2001	6	3	7	2	3	4	6	8	3	2	2	2	2	2	3	2				
Sierra Leone	2003	5	1	6	0	3	2	7	5	1	4	1	4	1	4	2	3				
South Africa	2000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Tanzania	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uganda	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Zambia	2002	6	3	10	1	1	1	5	12	6	3	8	2	2	2	5	7				
Overall		5	4	7	2	3	3	5	7	3	2	3	3	2	2	2	2	2			
Income group																					
Low income		5	3	7	2	3	3	4	6	3	3	3	3	3	2	2	3	2			
Middle income		6	6	6	4	5	6	7	7	2	2	1	4	2	2	2	1	1			
Urbanization																					
Low		7	5	10	3	4	3	6	8	4	4	4	5	4	3	3	3	3			
Medium		3	1	5	1	1	1	2	5	3	1	3	2	1	2	2	3				
High		5	4	5	3	4	4	5	6	2	2	2	2	2	2	2	2	1			
Region																					
East		6	4	12	1	0	1	3	7	5	4	5	2	1	1	3	3				
West		5	3	5	2	3	3	4	6	3	2	2	2	2	2	2	2	2			
South		4	3	5	0	3	1	6	6	3	2	3	1	3	1	3	3				
Central		8	8	8	6	7	7	8	9	2	3	2	6	3	3	2	2	2			

Source: AICD Expenditure Survey Database, 2007.

* Sample average.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.7 Wood/charcoal expenditure budget and share in household budget

Country	Year	Expenditure budget (2002 US\$)										Share in household budget (%)									
		National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5				
Angola	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Benin	2002	4	4	4	4	4	3	4	4	4	5	3	9	6	5	4	3				
Burkina Faso	2003	4	4	4	4	4	4	4	4	3	4	2	8	5	4	3	2				
Burundi	1998	8	4	11	2	3	3	4	9	12	6	5	9	8	6	7	8				
Cameroon	2004	3	3	3	0	1	1	2	5	3	3	2	1	1	2	2	3				
Cape Verde	2001	3	3	3	3	3	3	3	3	3	4	2	5	4	3	3	2				
Chad	2001	6	8	5	4	4	5	9	9	2	4	1	4	2	2	3	1				
Congo, Dem Rep	2005	1	1	2	1	1	1	1	2	1	1	1	1	1	1	1	1				
Congo, Rep	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Côte d'Ivoire	2005	5	6	5	4	5	6	5	5	2	3	2	5	4	3	2	1				
Ethiopia	2000	4	4	2	3	4	4	4	5	7	8	3	9	8	8	7	6				
Gabon	2005	5	6	5	4	5	4	5	6	1	2	1	4	2	1	1	1				
Ghana	1999	6	4	6	2	4	4	8	6	3	3	3	3	3	3	4	2				
Guinea-Bissau	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Kenya	1997	4	4	4	2	3	3	4	4	3	3	2	4	4	3	3	2				
Madagascar	2001	2	2	2	3	1	1	2	2	1	1	0	3	1	1	1	0				
Malawi	2003	6	6	8	5	6	6	7	8	9	10	6	14	13	12	10	7				
Mauritania	2000	3	2	4	1	2	3	4	3	1	1	1	1	1	1	2	1				
Morocco	2003	2	3	2	2	2	2	3	3	1	1	0	1	1	1	1	0				
Mozambique	2003	0	0	0	0	0	0	0	1	1	1	0	1	1	1	1	0				
Niger	2005	6	5	7	4	4	5	6	7	5	5	4	8	5	5	5	3				
Nigeria	2003	1	1	2	1	2	2	1	1	2	2	2	5	3	2	2	1				
Rwanda	1998	8	5	10	1	1	3	4	11	8	7	3	3	3	4	4	4				
Sao Tome Prin	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Senegal	2001	1	1	1	0	1	0	1	1	0	0	0	0	1	0	0	0				
Sierra Leone	2003	3	2	4	1	2	2	3	4	3	3	2	3	3	3	3	2				
South Africa	2000	3	4	3	3	4	5	3	2	1	2	0	3	3	2	1	0				
Tanzania	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Uganda	2002	4	3	4	2	2	3	4	6	5	5	3	7	5	5	4	3				
Zambia	2002	4	2	7	1	1	1	2	9	4	2	5	3	3	2	2	5				
Overall		4	3	4	2	3	3	4	5	3	3	2	5	4	3	3	2				
Income group																					
Low income		4	3	5	2	3	3	4	5	4	4	2	5	4	4	3	3				
Middle income		3	4	3	2	3	3	3	4	2	2	1	3	2	2	1	1				
Urbanization																					
Low		5	5	6	3	3	4	5	6	5	5	3	7	5	5	5	4				
Medium		3	2	3	1	2	2	2	4	3	2	2	3	3	2	2	2				
High		3	3	3	2	3	3	3	4	2	2	1	3	2	2	2	1				
Region																					
East		5	4	6	2	3	3	4	7	7	6	3	7	6	5	5	4				
West		3	3	4	2	3	3	4	4	2	3	2	4	3	3	3	2				
South		3	3	4	2	3	3	3	4	3	3	2	5	4	3	3	2				
Central		4	5	4	2	3	3	4	6	2	3	1	3	2	2	2	2				

Source: AICD Expenditure Survey Database, 2007.

* Sample average.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.8 Transport expenditure budget and share in household budget

Country	Year	Expenditure budget (2002 US\$)										Share in household budget (%)									
		National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5				
Angola	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Benin	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burkina Faso	2003	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burundi	1998	1	0	16	0	0	0	0	3	2	1	7	0	0	0	0	1	3			
Cameroon	2004	3	2	7	1	1	2	2	7	3	2	4	1	1	2	2	4				
Cape Verde	2001	8	4	12	2	3	4	4	14	6	4	7	4	4	4	4	4	8			
Chad	2001	3	2	3	1	1	1	2	4	1	1	1	1	0	1	1	1	1			
Congo, Dem Rep	2005	5	3	6	2	2	3	3	8	5	4	4	4	3	4	3	4	3	4		
Congo, Rep	2002	19	5	36	2	4	7	13	46	9	4	11	3	3	5	7	12				
Côte d'Ivoire	2005	13	11	14	7	9	11	12	20	6	7	5	8	6	6	5	5	5	5		
Ethiopia	2000	2	1	5	1	1	1	2	4	4	3	6	3	2	3	3	3	5			
Gabon	2005	56	31	59	17	28	37	53	77	12	12	12	18	9	9	11	12				
Ghana	1999	10	7	13	3	5	7	8	16	6	5	6	5	4	5	4	6				
Guinea-Bissau	2005	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	0	1			
Kenya	1997	12	8	23	3	4	6	8	20	9	7	10	5	5	5	6	9				
Madagascar	2001	6	4	14	1	2	4	5	17	2	2	3	2	1	2	2	3				
Malawi	2003	11	11	13	6	9	7	9	14	16	17	10	17	20	13	13	12				
Mauritania	2000	3	1	6	0	1	2	3	7	1	1	2	0	1	1	1	2				
Morocco	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—				
Mozambique	2003	1	0	1	0	0	0	0	1	1	1	0	1	1	1	1	0				
Niger	2005	2	1	3	1	1	1	1	3	1	1	1	2	2	1	1	1				
Nigeria	2003	8	5	10	3	3	4	6	11	9	7	10	9	6	6	7	8				
Rwanda	1998	14	7	21	2	3	4	5	19	14	9	6	8	5	6	5	8				
Sao Tome Prin	2000	12	8	15	2	3	6	7	29	6	5	6	2	3	4	4	7				
Senegal	2001	8	5	13	3	3	5	8	17	4	3	4	2	3	3	3	4				
Sierra Leone	2003	6	3	10	1	2	2	4	16	5	3	6	2	2	3	4	6				
South Africa	2000	24	10	31	2	5	9	18	54	4	4	4	3	3	5	6	4				
Tanzania	2000	5	3	9	1	2	2	3	9	8	5	11	5	4	4	5	9				
Uganda	2002	10	8	15	2	3	4	7	24	12	11	11	9	7	6	7	10				
Zambia	2002	12	10	13	3	4	4	6	20	12	13	10	8	6	6	6	11				
Overall		9	6	14	2	4	5	7	17	6	5	6	4	4	4	4	6				
Income group																					
Low income		7	4	10	2	3	3	5	12	6	5	5	4	4	4	4	5				
Middle income		22	10	29	5	8	12	18	40	7	5	8	0	4	5	6	8				
Urbanization																					
Low		6	4	10	2	2	3	4	10	6	5	6	4	4	4	4	5				
Medium		6	4	8	1	2	3	3	11	6	5	5	4	3	3	3	5				
High		15	8	20	4	6	8	12	27	6	5	7	5	4	4	5	6				
Region																					
East		7	5	15	2	2	3	4	13	8	6	8	5	4	4	4	7				
West		6	4	9	2	3	4	5	12	4	3	4	3	3	3	3	4				
South		11	7	14	2	4	5	8	21	7	7	6	6	6	5	6	6				
Central		17	9	22	4	7	10	14	28	6	4	7	5	3	4	4	6				

Source: AICD Expenditure Survey Database, 2007.

* Sample average.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.9 Refuse disposal expenditure budget and share in household budget

Country	Year	Expenditure budget (2002 US\$)										Share in household budget (%)									
		National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5				
Angola	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Benin	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burkina Faso	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burundi	1998	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cameroon	2004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cape Verde	2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chad	2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congo, Dem Rep	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congo, Rep	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Côte d'Ivoire	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ethiopia	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gabon	2005	10	12	10	19	15	8	2	5	2	2	6	3	1	1	1	1	0	1	1	1
Ghana	1999	2	1	2	0	0	1	1	3	1	1	1	1	0	1	1	1	1	1	1	1
Guinea-Bissau	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kenya	1997	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Madagascar	2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malawi	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mauritania	2000	2	2	2	1	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
Morocco	2003	1	0	1	1	1	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0
Mozambique	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Niger	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nigeria	2003	0	0	1	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0
Rwanda	1998	5	16	2	39	7	13	12	4	5	21	1	128	14	20	13	2	—	—	—	—
Sao Tome Prin	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Senegal	2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sierra Leone	2003	21	4	22	0	1	1	10	29	19	5	14	1	1	1	9	12	—	—	—	—
South Africa	2000	1	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
Tanzania	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uganda	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Zambia	2002	1	1	2	0	0	1	1	2	1	1	1	1	1	1	1	1	1	1	1	1
Overall		5	4	5	5	3	2	5	6	3	4	2	17	3	3	3	2	—	—	—	—
Income group		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Low income		5	4	5	7	2	3	4	7	5	5	3	22	3	4	4	3	—	—	—	—
Middle income		4	4	4	0	7	1	6	4	1	2	1	0	2	0	1	1	1	1	1	1
Urbanization		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Low		5	16	2	39	7	13	12	4	5	21	1	128	14	20	13	2	—	—	—	—
Medium		11	2	12	0	1	1	5	15	10	3	8	1	1	1	5	6	—	—	—	—
High		3	2	3	1	4	1	3	3	1	1	1	1	1	0	1	1	1	1	1	1
Region		—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
East		5	16	2	39	7	13	12	4	5	21	1	128	14	20	13	2	—	—	—	—
West		5	1	6	1	1	1	3	7	4	1	3	1	1	1	2	3	—	—	—	—
South		1	0	2	0	0	1	1	2	1	0	1	1	0	1	1	1	1	1	1	1
Central		10	12	10	—	19	—	15	8	2	5	2	—	6	—	3	1	—	—	—	—

Source: AICD Expenditure Survey Database, 2007.

* Sample average.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.10 Landline expenditure budget and share in household budget

Country	Year	Expenditure budget (2002 US\$)										Share in household budget (%)					
		National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5
Angola	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Benin	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Burkina Faso	2003	1	5	0	10	10	1	4	0	1	5	0	20	15	1	4	0
Burundi	1998	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cameroon	2004	3	0	5	—	0	1	1	5	3	0	3	—	0	1	1	3
Cape Verde	2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Chad	2001	8	3	12	1	2	5	8	18	2	2	3	1	2	2	3	3
Congo, Dem Rep	2005	1	0	2	0	0	1	1	2	1	0	1	1	1	1	1	
Congo, Rep	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Côte d'Ivoire	2005	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	
Ethiopia	2000	4	0	4	0	1	1	2	4	7	1	5	1	2	3	3	5
Gabon	2005	10	18	10	5	5	7	7	15	2	7	2	6	2	2	1	2
Ghana	1999	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Guinea-Bissau	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Kenya	1997	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Madagascar	2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Malawi	2003	22	8	26	—	—	3	7	23	32	13	20	—	—	5	11	19
Mauritania	2000	59	45	60	—	56	41	15	68	26	26	20	—	42	22	6	18
Morocco	2003	18	12	18	10	11	13	15	22	4	4	3	6	4	4	3	2
Mozambique	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Niger	2005	18	10	21	—	5	6	10	20	15	10	10	—	7	7	9	9
Nigeria	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Rwanda	1998	3	3	3	—	1	0	1	3	3	3	1	—	2	1	2	1
Sao Tome Prin	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Senegal	2001	6	2	8	1	2	2	4	10	3	1	3	1	1	1	2	3
Sierra Leone	2003	8	6	9	0	0	2	4	10	8	7	5	1	0	3	3	4
South Africa	2000	64	19	90	4	11	19	38	161	12	7	13	5	8	10	13	12
Tanzania	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Uganda	2002	5	2	8	1	2	2	2	10	7	3	6	3	4	3	2	4
Zambia	2002	2	2	3	0	0	0	1	3	2	2	2	1	1	1	1	2
Overall		14	8	16	3	0	0	7	22	8	5	6	4	6	4	4	5
Income group																	
Low income		11	7	12	2	7	5	5	13	8	6	6	3	6	4	4	5
Middle income		24	12	31	7	7	10	15	51	5	5	5	6	3	4	4	5
Urbanization																	
Low		9	5	11	3	3	2	5	11	9	5	6	6	5	3	5	6
Medium		4	3	4	0	0	1	2	5	4	3	3	1	1	1	2	2
High		23	14	27	4	12	12	11	40	7	7	6	4	8	6	4	6
Region																	
East		4	2	5	1	1	1	2	6	6	2	4	2	3	2	2	4
West		16	12	17	4	12	9	7	19	8	8	6	6	10	5	4	5
South		30	9	39	2	5	7	15	62	15	7	12	3	4	5	8	11
Central		6	6	7	2	2	3	4	10	2	2	2	2	1	1	2	2

Source: AICD Expenditure Survey Database, 2007.

* Sample average.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.11 Cellphone expenditure budget and share in household budget

Country	Year	Expenditure budget (2002 US\$)										Share in household budget (%)				
		National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5	National	Rural	Urban	Q1	Q2	Q3	Q4
Angola	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Benin	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burkina Faso	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Burundi	1998	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cameroon	2004	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cape Verde	2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chad	2001	2	1	3	0	0	0	1	7	1	0	1	0	0	0	1
Congo, Dem Rep	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congo, Rep	2002	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Côte d'Ivoire	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ethiopia	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Gabon	2005	32	28	33	8	11	18	27	45	7	11	7	8	4	4	5
Ghana	1999	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Guinea-Bissau	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kenya	1997	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Madagascar	2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Malawi	2003	31	30	32	—	1	3	7	33	45	48	24	—	2	6	10
Mauritania	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Morocco	2003	11	30	9	—	—	—	6	13	2	10	2	—	—	1	1
Mozambique	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Niger	2005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nigeria	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Rwanda	1998	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sao Tome Prin	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Senegal	2001	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sierra Leone	2003	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
South Africa	2000	42	10	59	0	1	3	12	123	8	4	8	1	1	2	4
Tanzania	2000	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uganda	2002	18	13	22	3	7	7	10	24	23	19	16	12	14	11	10
Zambia	2002	10	5	10	3	1	1	2	12	10	6	7	9	1	1	2
Overall		21	17	24	3	0	0	9	37	14	14	9	6	4	4	5
Income group																
Low income		15	12	17	2	2	3	5	19	20	19	12	7	5	4	6
Middle income		28	23	34	4	6	11	15	60	6	8	6	4	2	3	3
Urbanization																
Low		17	15	19	2	3	4	6	21	23	23	14	6	6	6	7
Medium		10	5	10	3	1	1	2	12	10	6	7	9	1	1	2
High		28	23	34	4	6	11	15	60	6	8	6	4	2	3	3
Region																
East		18	13	22	3	7	7	10	24	23	19	16	12	14	11	10
West		11	30	9	—	—	—	6	13	2	10	2	—	—	—	1
South		27	15	34	2	1	2	7	56	21	19	13	5	1	3	5
Central		17	14	18	4	6	9	14	26	4	6	4	4	2	2	3

Source: AICD Expenditure Survey Database, 2007.

* Sample average

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.12 All infrastructure expenditure share

Country	Year	Expenditure budget (2002 US\$)										Share in household budget (%)									
		National*	Rural	Urban	Q1	Q2	Q3	Q4	Q5	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5				
Angola	2000	1	1	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0
Benin	2002	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Burkina Faso	2003	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0
Burundi	1998	1	0	16	0	0	0	0	3	2	1	7	0	0	0	0	1	3			
Cameroon	2004	4	2	10	1	1	2	3	9	3	2	6	1	1	2	2	5				
Cape Verde	2001	7	3	13	2	3	3	4	14	6	3	7	2	3	4	4	8				
Chad	2001	26	8	39	4	8	14	24	55	8	4	9	4	5	6	8	8	8			
Congo, Dem Rep	2005	2	1	6	0	1	1	2	5	2	1	4	1	1	1	2	3				
Congo, Rep	2002	21	6	40	2	5	9	15	50	10	4	13	3	4	6	8	12				
Côte d'Ivoire	2005	13	6	18	4	7	10	13	23	6	4	6	5	5	6	5	6				
Ethiopia	2000	2	2	7	1	2	2	2	4	4	3	8	4	4	3	3	5				
Gabon	2005	103	48	111	25	47	68	99	146	23	18	23	26	15	16	20	23				
Ghana	1999	10	6	17	1	4	6	9	20	6	4	8	2	4	4	5	8				
Guinea-Bissau	2005	0	0	1	0	0	0	0	1	0	0	1	0	0	0	0	1				
Kenya	1997	13	8	24	3	4	6	8	23	9	7	10	5	5	5	6	10				
Madagascar	2001	5	4	10	1	2	3	5	12	2	2	2	1	1	2	2	2				
Malawi	2003	4	2	19	0	1	1	2	12	6	3	15	1	1	2	3	10				
Mauritania	2000	9	2	19	0	2	5	7	21	4	1	6	0	2	3	3	6				
Morocco	2003	16	2	27	3	6	13	22	43	4	1	5	2	2	3	4	4				
Mozambique	2003	6	1	8	1	1	1	3	11	10	3	7	4	4	3	6	8				
Niger	2005	9	4	17	2	3	4	6	16	7	4	8	5	4	4	5	7				
Nigeria	2003	6	3	10	2	3	4	5	11	7	4	9	7	5	5	6	8				
Rwanda	1998	3	1	22	0	0	0	1	11	3	1	7	0	0	0	1	5				
Sao Tome Prin	2000	43	17	65	3	6	11	16	128	20	11	25	3	5	8	9	31				
Senegal	2001	17	7	30	4	6	8	16	38	8	4	10	4	4	5	7	10				
Sierra Leone	2003	5	2	12	0	1	2	3	21	5	2	8	1	2	2	3	8				
South Africa	2000	147	46	204	9	21	40	80	377	27	18	29	11	15	21	27	29				
Tanzania	2000	3	2	8	1	1	2	3	7	6	4	9	2	3	3	5	8				
Uganda	2002	7	4	22	1	2	3	7	33	9	6	16	2	3	4	7	14				
Zambia	2002	4	1	10	0	1	1	2	12	4	1	7	1	1	1	2	7				
Overall		16	6	26	2	5	7	12	37	7	4	9	3	3	4	5	8				
Income group																					
Low income		8	3	16	1	2	4	6	20	5	3	8	2	3	3	4	7				
Middle income		43	15	58	6	12	19	32	92	10	7	12	7	6	7	9	12				
Urbanization																					
Low		6	3	15	1	2	3	5	15	5	3	8	2	2	3	3	6				
Medium		4	1	7	0	1	1	2	10	4	1	5	1	1	2	2	5				
High		30	11	43	4	9	14	22	68	9	6	11	5	5	6	8	11				
Region																					
East		5	3	16	1	1	2	3	14	5	4	10	2	3	3	4	7				
West		10	4	18	2	3	5	8	26	6	3	7	3	3	3	4	7				
South		28	9	42	2	4	8	15	71	8	4	10	3	4	5	7	9				
Central		31	13	41	6	12	19	28	53	9	6	11	7	5	6	8	10				

Source: AICD Expenditure Survey Database, 2007.

* Sample average.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.13 Affordability analysis at the continental level

Cost of minimum consumption (US\$)																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
At 3% of household budget threshold for % of urban households																
Quintile																
1	1	3	4	6	7	8	10	11	13	14	15	17	18	20	21	23
2	1	2	3	3	4	5	6	7	8	9	9	10	11	12	13	14
3	1	1	2	2	3	4	4	5	6	6	7	7	8	9	9	10
4	0	1	1	2	2	3	3	4	4	4	5	5	6	6	7	7
5	0	1	1	1	1	2	2	2	3	3	3	3	3	4	4	4
At 5% of household budget threshold for % of urban households																
1	1	3	4	5	7	8	9	11	12	13	15	16	17	19	20	21
2	1	1	2	3	3	4	5	5	6	7	7	8	9	9	10	11
3	0	1	1	2	2	3	3	3	4	4	5	5	6	6	6	7
4	0	0	1	1	1	1	2	2	2	2	2	3	3	3	3	4
5	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1

Source: AICD Expenditure Survey Database, 2007.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.3.14 Affordability analysis at the country level

	Cost of minimum consumption (US\$)															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
At 3% of household budget threshold for % of urban households																
Country																
Burundi	4.0	20.0	45.0	62.0	72.0	82.0	86.0	95.0	99.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Benin	0.0	0.0	3.0	6.0	15.0	33.0	42.0	55.0	65.0	75.0	84.0	88.0	91.0	95.0	97.0	97.0
Burkina Faso	0.0	2.0	8.0	21.0	35.0	47.0	60.0	71.0	75.0	80.0	87.0	88.0	90.0	91.0	93.0	93.0
Cameroon	0.0	0.0	0.0	0.0	0.0	1.0	2.0	6.0	11.0	18.0	30.0	45.0	60.0	73.0	82.0	88.0
Cape Verde	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	3.0	
Congo, Dem Rep	5.0	36.0	67.0	84.0	93.0	98.0	99.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Congo, Rep	0.0	0.0	1.0	3.0	6.0	12.0	21.0	25.0	33.0	35.0	46.0	50.0	56.0	60.0	67.0	72.0
Côte d'Ivoire	0.0	0.0	0.0	1.0	2.0	3.0	5.0	7.0	8.0	14.0	21.0	27.0	34.0	41.0	47.0	53.0
Ethiopia	23.0	77.0	93.0	97.0	99.0	99.0	99.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Ghana	0.0	1.0	3.0	9.0	14.0	30.0	41.0	52.0	61.0	72.0	82.0	90.0	95.0	98.0	98.0	100.0
Guinea Bissau	0.0	4.0	22.0	52.0	68.0	81.0	88.0	89.0	92.0	93.0	96.0	98.0	98.0	98.0	99.0	
Kenya	0.0	0.0	4.0	9.0	23.0	36.0	59.0	69.0	77.0	80.0	83.0	87.0	88.0	90.0	91.0	93.0
Madagascar	0.0	7.0	23.0	34.0	49.0	61.0	66.0	76.0	82.0	85.0	89.0	92.0	94.0	94.0	95.0	95.0
Malawi	1.0	18.0	49.0	70.0	79.0	87.0	92.0	93.0	94.0	95.0	95.0	95.0	95.0	95.0	95.0	95.0
Morocco	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	
Mozambique	0.0	8.0	20.0	39.0	48.0	59.0	65.0	73.0	76.0	80.0	85.0	87.0	88.0	89.0	90.0	90.0
Niger	1.0	7.0	20.0	39.0	57.0	70.0	78.0	87.0	92.0	93.0	95.0	97.0	97.0	98.0	98.0	98.0
Nigeria	2.0	8.0	18.0	25.0	37.0	57.0	75.0	88.0	93.0	95.0	97.0	98.0	98.0	98.0	99.0	99.0
Senegal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	2.0	4.0	5.0	6.0	8.0	9.0
Sierra Leone	0.0	3.0	7.0	22.0	35.0	44.0	53.0	60.0	65.0	68.0	72.0	74.0	79.0	81.0	84.0	87.0
Sao Tome Prin	0.0	1.0	5.0	18.0	32.0	46.0	59.0	74.0	78.0	83.0	87.0	90.0	93.0	95.0	96.0	97.0
Tanzania	0.0	4.0	15.0	34.0	62.0	75.0	88.0	94.0	97.0	98.0	99.0	99.0	99.0	99.0	99.0	99.0
Uganda	0.0	5.0	32.0	53.0	68.0	82.0	90.0	94.0	96.0	98.0	98.0	98.0	99.0	99.0	99.0	99.0
South Africa	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	2.0	3.0	4.0
Zambia	0.0	2.0	11.0	26.0	37.0	50.0	56.0	64.0	72.0	78.0	82.0	87.0	90.0	91.0	91.0	93.0
Low income	2.9	13.9	26.2	35.9	46.5	59.5	70.3	78.5	82.5	85.2	87.9	89.7	90.7	91.5	92.5	93.1
Middle income	0.0	0.0	0.0	0.1	0.3	1.2	1.8	2.6	3.7	4.8	7.2	10.1	12.6	14.8	17.2	18.9
Overall	2.2	10.4	19.5	26.8	34.8	44.7	52.9	59.2	62.5	64.7	67.3	69.4	70.8	72.0	73.4	74.2
At 5% of household budget threshold for % of urban households																
Burundi	1.0	7.0	17.0	29.0	45.0	53.0	67.0	72.0	76.0	82.0	86.0	90.0	94.0	97.0	99.0	100.0
Benin	0.0	0.0	0.0	2.0	3.0	4.0	7.0	12.0	21.0	33.0	41.0	45.0	53.0	60.0	65.0	71.0
Burkina Faso	0.0	0.0	1.0	4.0	8.0	20.0	24.0	34.0	42.0	47.0	56.0	62.0	69.0	72.0	75.0	78.0
Cameroon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	4.0	7.0	11.0	17.0
Cape Verde	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Congo, Dem Rep	0.0	9.0	31.0	49.0	67.0	79.0	87.0	91.0	98.0	98.0	99.0	99.0	99.0	100.0	100.0	
Congo, Rep	0.0	0.0	0.0	0.0	1.0	3.0	3.0	5.0	9.0	12.0	17.0	21.0	23.0	28.0	33.0	35.0
Côte d'Ivoire	0.0	0.0	0.0	0.0	0.0	1.0	1.0	2.0	3.0	3.0	5.0	5.0	7.0	7.0	8.0	10.0
Ethiopia	1.0	40.0	73.0	87.0	93.0	95.0	98.0	99.0	99.0	99.0	99.0	99.0	99.0	100.0	100.0	

ANNEX 1 CROSS-COUNTRY TABLES

Ghana	0.0	0.0	1.0	2.0	3.0	7.0	10.0	11.0	23.0	30.0	36.0	46.0	50.0	55.0	61.0	67.0
Guinea Bissau	0.0	0.0	1.0	6.0	22.0	38.0	56.0	65.0	73.0	81.0	85.0	89.0	89.0	91.0	92.0	93.0
Kenya	0.0	0.0	0.0	0.0	4.0	5.0	13.0	20.0	28.0	36.0	49.0	62.0	67.0	72.0	77.0	78.0
Madagascar	0.0	0.0	5.0	16.0	23.0	28.0	38.0	47.0	53.0	61.0	64.0	68.0	74.0	78.0	82.0	85.0
Malawi	0.0	2.0	13.0	32.0	49.0	66.0	71.0	78.0	81.0	87.0	90.0	92.0	93.0	93.0	94.0	94.0
Morocco	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Mozambique	0.0	0.0	5.0	16.0	20.0	32.0	41.0	47.0	52.0	59.0	64.0	68.0	72.0	75.0	76.0	78.0
Niger	0.0	1.0	4.0	11.0	20.0	28.0	41.0	55.0	61.0	70.0	74.0	79.0	86.0	89.0	92.0	93.0
Nigeria	0.0	3.0	7.0	10.0	18.0	23.0	27.0	35.0	46.0	57.0	69.0	78.0	85.0	89.0	93.0	95.0
Senegal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
Sierra Leone	0.0	0.0	2.0	4.0	7.0	16.0	23.0	30.0	40.0	44.0	49.0	54.0	57.0	62.0	65.0	67.0
Sao Tome Prin	0.0	0.0	0.0	2.0	5.0	13.0	20.0	29.0	36.0	46.0	57.0	64.0	72.0	77.0	78.0	81.0
Tanzania	0.0	1.0	1.0	8.0	15.0	25.0	38.0	55.0	69.0	75.0	84.0	89.0	94.0	96.0	97.0	98.0
Uganda	0.0	2.0	5.0	17.0	32.0	45.0	55.0	65.0	77.0	82.0	88.0	90.0	94.0	96.0	96.0	97.0
South Africa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Zambia	0.0	0.0	1.0	4.0	11.0	18.0	28.0	35.0	41.0	50.0	55.0	58.0	61.0	67.0	72.0	76.0
Low income	0.1	5.0	12.1	18.4	26.2	32.4	38.0	44.5	52.7	59.5	66.7	72.3	76.7	79.7	82.5	84.3
Middle income	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.9	1.2	1.4	1.8	2.2	2.9	3.7	4.7
Overall	0.1	3.7	9.0	13.7	19.5	24.2	28.3	33.2	39.5	44.7	50.1	54.3	57.7	60.2	62.5	64.1

Source: AICD Expenditure Survey Database, 2007.

Part 4 Access to infrastructure alternatives

Table A1.4.1 Standpost

Table A1.4.2 Borehole

Table A1.4.3 Surface water

Table A1.4.4 Vendor

Table A1.4.5 VIP/ventilated/improved latrine

Table A1.4.6 Traditional pit latrine

Table A1.4.7 No sanitation

Table A1.4.8 LPG for cooking

Table A1.4.9 Kerosene for cooking

Table A1.4.10 Wood/charcoal for cooking

Table A1.4.11 Refuse disposal on pit or heap

Table A1.4.12 Refuse disposal by burning or burial

Table A1.4.13 Average annual growth rate in water services

Table A1.4.14 Average annual growth rate in sanitation services

Table A1.4.15 Average annual growth rate in energy and ICT services

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.1 Standpost

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	5	14	19	6	13	18	20	16	3
Burkina Faso	10	8	13	4	53	0	0	5	17	47
Cameroon	22	23	26	10	43	0	17	28	49	35
C. African Rep	19	—	—	2	43	0	2	10	36	47
Chad	—	6	7	2	23	0	1	7	7	18
Comoros	—	27	—	25	30	69	8	26	15	7
Congo, Dem Rep	7	—	12	0	40	0	0	0	7	59
Congo, Rep	—	—	23	5	40	4	11	46	50	6
Côte d'Ivoire	21	23	—	28	15	24	33	29	29	1
Ethiopia	—	12	16	12	41	0	4	18	20	37
Gabon	—	30	—	11	37	13	55	63	20	0
Ghana	19	21	20	8	38	2	22	17	35	27
Guinea	—	11	13	2	38	0	0	5	17	43
Kenya	11	9	9	7	20	3	5	10	15	14
Lesotho	—	52	48	50	38	55	43	56	55	31
Madagascar	12	11	18	10	47	0	0	6	34	50
Malawi	20	16	13	7	43	0	0	6	23	34
Mali	—	11	20	16	32	1	11	27	28	34
Mauritania	—	—	15	8	24	0	24	19	21	12
Mozambique	—	18	18	5	43	0	3	6	29	51
Namibia	19	21	—	22	19	13	30	38	23	0
Niger	11	13	—	7	37	0	0	0	32	31
Nigeria	13	14	9	6	17	4	7	9	13	15
Rwanda	21	29	25	22	41	0	3	51	23	48
Senegal	18	17	18	23	12	19	33	23	14	2
South Africa	—	19	—	30	10	31	48	17	0	0
Sudan	—	8	—	10	37	0	0	5	45	77
Tanzania	20	20	25	19	45	12	15	20	37	42
Togo	—	18	—	15	23	8	11	20	28	21
Uganda	4	—	7	1	47	0	0	1	3	32
Zambia	18	16	16	4	36	0	3	13	45	17
Zimbabwe	8	7	—	8	6	1	9	10	16	1
Income group										
Low	14	14	15	9	26	4	7	12	20	25
Middle	24	22	21	24	21	22	38	24	18	10
Urbanization										
Low	12	13	16	11	39	3	5	14	22	35
Medium	15	16	15	6	23	3	6	10	21	21
High	17	17	16	12	20	10	19	15	17	13
Region										
East	16	16	17	11	31	4	7	15	18	29
West	17	17	17	9	21	5	11	13	19	19
South	19	19	16	14	22	12	20	12	19	22
Central	12	12	15	5	32	0	6	14	28	25
Overall	15	15	16	10	25	6	11	13	20	23

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.2 Well/borehole

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	55	45	54	28	50	60	62	44	8
Burkina Faso	79	82	68	79	13	65	83	84	77	19
Cameroon	28	27	32	48	15	47	56	34	20	5
C. African Rep	38	—	—	41	35	31	35	53	43	30
Chad	—	72	66	74	34	52	76	77	85	40
Comoros	—	46	—	54	24	19	50	57	62	46
Congo, Dem Rep	49	—	9	8	11	4	13	15	11	4
Congo, Rep	—	—	15	25	6	18	27	21	8	2
Côte d'Ivoire	41	41	—	54	20	56	55	64	30	2
Ethiopia	—	6	10	11	2	5	14	12	11	8
Gabon	—	8	—	24	3	22	15	3	1	0
Ghana	33	35	42	57	21	51	56	49	46	8
Guinea	—	47	50	59	30	30	71	67	72	13
Kenya	25	22	22	24	14	12	25	30	26	16
Lesotho	15	33	38	10	44	43	32	33	15	
Madagascar	16	23	22	22	19	19	18	19	28	25
Malawi	59	66	69	78	24	84	83	77	69	33
Mali	—	79	65	75	37	95	80	62	62	27
Mauritania	—	—	45	68	15	96	45	53	24	6
Mozambique	—	46	59	73	33	68	78	77	60	13
Namibia	27	32	—	47	0	67	52	35	4	0
Niger	75	72	—	87	8	99	95	92	52	20
Nigeria	32	44	54	57	48	59	58	52	48	51
Rwanda	2	10	20	21	18	6	37	18	25	15
Senegal	51	49	36	56	10	77	56	36	8	0
South Africa	—	4	—	9	0	9	7	3	1	0
Sudan	—	45	—	51	36	74	58	41	27	12
Tanzania	31	41	41	48	19	57	54	45	34	15
Togo	—	38	—	45	23	40	51	49	38	15
Uganda	40	—	68	73	35	66	69	72	82	52
Zambia	24	45	47	64	16	69	63	60	36	6
Zimbabwe	54	52	—	76	1	80	68	76	34	1
Income group										
Low income	40	41	45	45	29	46	49	45	38	22
Middle income	11	11	12	22	4	21	22	13	7	2
Urbanization										
Low	33	34	37	41	17	38	44	41	38	20
Medium	57	49	52	42	22	44	47	44	31	8
High	28	34	39	49	29	49	48	41	34	28
Region										
East	40	41	45	33	20	34	37	33	29	17
West	51	54	56	61	37	62	62	57	48	33
South	25	36	31	47	9	42	41	39	29	10
Central	47	26	41	24	14	19	29	27	22	9
Overall	37	38	41	43	24	44	46	42	35	20

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.3 Surface water

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	17	12	16	5	37	14	7	3	0
Burkina Faso	4	5	13	16	1	35	17	11	5	0
Cameroon	35	37	28	40	15	53	27	33	19	7
C. African Rep	39	—	—	57	14	69	63	36	20	8
Chad	—	12	18	22	4	48	22	13	7	2
Comoros	—	3	—	3	1	10	1	1	0	0
Congo, Dem Rep	22	—	62	86	22	96	85	73	55	12
Congo, Rep	—	—	30	59	5	76	55	17	4	0
Côte d'Ivoire	13	7	—	12	0	20	10	4	3	0
Ethiopia	—	78	68	76	8	94	82	70	69	25
Gabon	—	18	—	56	5	64	23	3	0	0
Ghana	34	27	20	32	3	45	20	30	4	1
Guinea	—	32	27	37	4	69	29	28	10	0
Kenya	45	47	46	56	6	84	65	52	29	2
Lesotho	—	20	8	9	1	1	14	11	8	3
Madagascar	65	59	55	65	17	81	82	76	36	1
Malawi	15	10	12	14	1	16	16	16	7	2
Mali	—	4	5	6	2	4	8	8	5	1
Mauritania	—	—	5	8	1	4	13	4	2	1
Mozambique	—	29	15	21	3	32	18	15	9	1
Namibia	21	8	—	12	0	17	14	7	3	0
Niger	3	3	—	3	0	1	3	5	3	2
Nigeria	42	28	23	31	8	33	30	28	16	8
Rwanda	75	54	51	56	25	94	59	30	50	23
Senegal	3	2	1	2	0	2	1	1	0	0
South Africa	—	14	—	31	0	53	14	4	0	0
Sudan	—	20	—	28	7	15	27	35	13	3
Tanzania	34	24	24	30	7	31	31	35	21	5
Togo	—	26	—	36	2	51	35	25	16	0
Uganda	53	—	22	24	2	34	30	25	14	4
Zambia	26	17	19	29	1	31	34	26	4	0
Zimbabwe	11	8	—	11	0	19	11	6	1	0
Income group										
Low income	43	32	34	41	8	49	41	37	25	7
Middle income	23	21	19	33	4	52	20	12	5	2
Urbanization										
Low	54	38	41	45	7	59	50	43	33	10
Medium	34	31	38	47	10	52	45	40	24	5
High	32	23	20	29	6	37	24	21	10	5
Region										
East	43	41	45	51	8	62	54	48	38	11
West	34	24	22	23	6	31	23	21	11	5
South	31	24	21	30	3	43	27	20	8	1
Central	25	31	49	69	16	80	64	54	38	9
Overall	41	31	33	41	7	49	39	34	23	7

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.4 Vendor

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	0	0	0	0	0	0	0	0	0
Burkina Faso	1	1	0	0	0	0	0	0	0	0
Cameroon	0	1	0	0	0	0	0	0	0	0
C. African Rep	0	—	—	0	0	0	0	0	0	0
Chad	—	7	4	0	16	0	0	1	1	16
Comoros	—	0	—	0	0	0	0	0	0	0
Congo, Dem Rep	0	—	0	0	0	0	0	0	0	0
Congo, Rep	—	—	1	1	0	1	1	1	0	0
Côte d'Ivoire	0	0	—	0	0	0	0	0	0	0
Ethiopia	—	0	0	0	1	0	0	0	0	0
Gabon	—	0	—	0	0	0	0	0	0	0
Ghana	1	1	1	0	2	0	0	1	3	2
Guinea	—	0	0	0	0	0	0	0	0	0
Kenya	0	0	0	0	0	0	0	0	0	0
Lesotho	—	0	0	0	0	0	0	0	0	0
Madagascar	0	1	0	0	0	0	0	0	0	0
Malawi	0	0	0	0	0	0	0	0	0	0
Mali	—	0	0	0	0	0	0	0	0	0
Mauritania	—	—	16	3	32	0	14	15	26	25
Mozambique	—	0	0	0	0	0	0	0	0	0
Namibia	1	0	—	0	0	1	0	0	0	0
Niger	4	5	—	2	21	0	1	3	4	19
Nigeria	3	3	6	4	10	4	4	7	10	6
Rwanda	0	0	0	0	0	0	0	0	0	0
Senegal	0	0	0	0	0	0	0	0	0	0
South Africa	—	1	—	2	0	2	2	1	0	0
Sudan	—	0	—	0	0	0	0	0	0	0
Tanzania	0	1	2	1	6	0	0	0	1	7
Togo	—	0	—	0	0	0	0	0	0	0
Uganda	0	—	0	0	0	0	0	0	0	0
Zambia	0	0	0	0	0	0	0	0	0	0
Zimbabwe	0	0	—	0	0	0	0	0	0	0
Income group										
Low income	1	1	2	1	4	1	1	2	3	3
Middle income	1	1	1	1	0	1	1	1	0	0
Urbanization										
Low	1	1	1	0	3	0	0	0	0	3
Medium	0	0	0	0	0	0	0	0	0	0
High	2	2	4	3	6	2	3	4	6	3
Region										
East	1	1	2	0	1	0	0	0	0	1
West	2	2	4	2	7	2	2	4	6	4
South	0	0	0	0	0	1	1	0	0	0
Central	2	1	1	0	1	0	0	0	0	2
Overall	1	1	2	1	4	1	1	2	2	2

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.5 VIP/ventilated/chemical toilet

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	1	14	5	29	0	1	4	13	52
Burkina Faso	1	0	18	7	70	0	1	3	20	74
Cameroon	0	24	27	13	41	0	1	25	64	46
C. African Rep	13	—	—	18	6	16	28	13	7	3
Chad	—	8	3	0	12	0	0	0	0	13
Comoros	—	21	—	15	35	0	0	18	24	62
Congo, Dem Rep	11	—	10	0	26	0	0	0	2	40
Congo, Rep	—	—	15	4	25	0	1	8	19	48
Côte d'Ivoire	22	13	—	8	23	0	1	11	28	27
Ethiopia	—	0	1	0	4	0	0	0	1	4
Gabon	—	22	—	8	27	2	13	38	53	4
Ghana	13	22	23	11	39	1	22	17	39	35
Guinea	—	0	2	2	3	0	1	4	2	4
Kenya	6	6	8	7	11	0	0	6	12	22
Lesotho	—	18	21	17	38	0	1	25	34	44
Madagascar	31	4	49	44	67	0	20	66	77	82
Malawi	1	1	1	1	2	0	0	0	0	6
Mali	—	8	11	7	21	0	1	8	17	28
Mauritania	—	—	4	0	9	0	0	0	3	16
Mozambique	—	1	2	0	5	0	0	0	0	9
Namibia	0	3	—	3	2	0	0	7	7	0
Niger	12	12	—	2	55	0	0	0	2	58
Nigeria	0	6	3	2	5	0	0	2	5	7
Rwanda	0	8	29	26	48	0	0	4	75	67
Senegal	22	23	10	11	9	6	16	10	10	7
South Africa	—	0	—	0	0	0	0	0	0	0
Sudan	—	0	—	0	0	0	0	0	0	0
Tanzania	1	1	4	1	12	0	0	0	1	17
Togo	—	18	—	12	33	0	4	7	32	48
Uganda	2	—	2	1	9	0	0	0	2	9
Zambia	1	0	2	1	2	0	0	1	4	2
Zimbabwe	21	25	—	36	2	7	23	58	36	0
Income group										
Low income	7	7	9	5	14	0	3	6	10	19
Middle income	2	7	8	4	13	0	1	8	19	15
Urbanization										
Low	5	3	9	6	21	0	2	6	12	24
Medium	11	10	11	4	12	1	3	6	6	19
High	4	9	8	4	12	0	3	6	13	13
Region										
East	6	7	10	3	8	0	0	1	6	12
West	8	11	12	4	14	0	3	5	12	20
South	7	4	11	13	9	1	6	17	17	16
Central	11	12	13	3	28	1	2	6	15	37
Overall	6	7	9	5	14	0	2	6	11	19

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.6 Traditional pit latrine

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	24	15	9	26	0	2	9	37	27
Burkina Faso	26	22	10	9	14	0	0	12	25	10
C. African Rep	59	—	—	40	86	0	41	76	89	91
Cameroon	45	60	58	73	41	84	84	71	34	15
Chad	—	21	24	13	64	0	0	2	47	70
Comoros	—	75	—	82	56	100	97	81	73	24
Congo, Dem Rep	71	—	76	82	66	82	77	86	90	51
Congo, Rep	—	—	70	78	62	80	80	87	74	27
Côte d'Ivoire	21	39	—	36	44	3	30	85	65	13
Ethiopia	—	17	35	29	77	0	12	56	33	73
Gabon	—	51	—	83	40	93	83	55	24	0
Ghana	47	41	41	50	27	88	52	26	25	11
Guinea	—	61	67	59	87	4	88	69	93	84
Kenya	68	68	64	69	44	87	81	60	61	32
Lesotho	—	36	33	30	45	0	13	49	56	47
Madagascar	6	33	3	2	6	0	0	0	4	8
Malawi	72	79	81	82	74	99	88	67	74	76
Mali	—	64	62	62	62	77	72	47	61	53
Mauritania	—	—	44	28	66	0	13	58	77	75
Mozambique	—	35	48	38	68	0	10	77	84	73
Namibia	7	8	—	9	5	0	0	22	15	0
Niger	4	7	—	4	21	0	0	1	10	24
Nigeria	62	54	59	60	58	75	75	62	61	24
Rwanda	93	87	66	70	43	100	97	88	20	25
Senegal	29	35	31	38	22	56	39	24	24	13
South Africa	—	34	—	64	9	48	72	47	4	0
Sudan	—	49	—	41	60	19	37	57	77	66
Tanzania	82	85	79	80	75	87	74	80	85	68
Togo	—	15	—	6	35	2	5	6	13	49
Uganda	79	—	80	81	78	86	83	68	83	81
Zambia	42	51	53	57	47	14	71	80	79	21
Zimbabwe	13	15	—	21	2	12	21	25	16	0
Income group										
Low income	51	49	54	51	54	49	52	57	58	44
Middle income	42	42	39	63	21	57	72	55	17	7
Urbanization										
Low	45	45	52	48	57	45	45	52	49	55
Medium	55	56	55	53	56	34	48	65	74	52
High	51	48	51	57	42	66	68	57	45	17
Region										
East	49	46	52	55	65	47	50	64	59	64
West	53	48	52	46	50	55	56	50	52	26
South	33	45	39	44	23	30	46	48	33	24
Central	62	59	65	70	59	70	69	73	73	46
Overall	50	49	52	52	49	50	54	57	54	40

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.7 No sanitation / Open defecation

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	74	68	85	37	99	95	87	48	9
Burkina Faso	72	77	70	83	8	100	99	84	53	6
Cameroon	13	10	7	13	1	15	15	4	1	1
C. African Rep	26	—	—	41	5	84	31	11	3	0
Chad	—	71	72	86	16	100	100	98	51	8
Comoros	—	0	—	0	0	0	1	0	0	0
Congo, Dem Rep	16	—	12	17	3	18	22	14	8	2
Congo, Rep	—	—	10	17	3	19	19	5	4	1
Côte d'Ivoire	42	35	—	54	3	97	69	5	4	0
Ethiopia	—	82	62	69	11	100	88	43	63	17
Gabon	—	2	—	4	2	5	3	2	1	0
Ghana	27	24	25	37	7	11	23	55	29	4
Guinea	—	34	28	38	2	96	11	27	4	1
Kenya	18	16	18	22	4	13	18	34	24	2
Lesotho	—	40	45	53	8	100	86	26	10	1
Madagascar	61	61	47	54	20	100	80	33	18	1
Malawi	25	17	14	16	5	1	11	33	25	2
Mali	—	27	21	28	2	23	27	37	16	1
Mauritania	—	—	49	70	21	100	87	41	18	0
Mozambique	—	60	47	61	18	100	89	22	16	3
Namibia	64	57	—	79	11	99	99	65	19	0
Niger	82	79	—	94	18	100	100	99	85	13
Nigeria	29	26	25	33	9	25	24	34	24	15
Rwanda	6	3	3	3	3	0	2	8	4	3
Senegal	38	32	22	36	4	35	37	28	7	1
South Africa	—	13	—	26	2	50	11	2	0	0
Sudan	—	43	—	56	24	78	61	39	14	2
Tanzania	14	12	14	18	2	13	26	20	12	2
Togo	—	64	—	79	30	95	86	85	52	3
Uganda	17	—	15	17	2	13	16	30	12	2
Zambia	29	27	27	40	4	86	29	18	3	0
Zimbabwe	39	28	—	42	0	81	44	11	5	0
Income group										
Low income	50	40	37	42	9	50	44	35	25	7
Middle income	16	14	13	26	2	42	17	5	1	0
Urbanization										
Low	59	44	41	45	8	55	54	41	36	7
Medium	57	49	42	42	12	64	47	27	13	2
High	26	23	21	33	6	33	25	26	16	9
Region										
East	50	39	36	41	11	52	49	34	31	7
West	50	44	40	46	9	44	39	42	27	10
South	38	35	28	40	6	68	42	17	9	1
Central	22	18	19	27	4	29	29	20	11	2
Overall	46	37	34	41	8	49	41	32	23	6

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.8 LPG for cooking

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	0	1	0	2	0	0	0	0	3
Burkina Faso	—	—	2	0	10	0	0	0	0	11
Cameroon	—	—	11	1	22	0	0	0	4	52
C. African Rep	—	—	—	—	—	—	—	—	—	—
Chad	—	—	—	—	—	—	—	—	—	—
Comoros	—	—	—	—	—	—	—	—	—	—
Congo, Dem Rep	—	—	—	—	—	—	—	—	—	—
Congo, Rep	—	—	8	1	15	0	0	2	9	31
Côte d'Ivoire	—	—	—	—	—	—	—	—	—	—
Ethiopia	—	0	0	0	1	0	0	0	0	1
Gabon	—	62	—	15	79	0	40	81	93	98
Ghana	—	—	7	1	15	0	2	1	4	26
Guinea	—	—	0	0	0	0	0	0	0	0
Kenya	—	—	3	1	12	0	0	0	1	15
Lesotho	—	14	19	10	57	0	0	1	16	77
Madagascar	—	—	1	0	2	0	0	0	0	4
Malawi	—	0	0	0	0	0	0	0	0	0
Mali	—	—	0	0	1	0	0	0	0	1
Mauritania	—	—	28	14	46	0	0	12	47	81
Mozambique	—	—	2	0	5	0	0	0	0	8
Namibia	—	7	—	3	16	0	0	1	23	12
Niger	—	—	—	—	—	—	—	—	—	—
Nigeria	—	—	1	1	2	0	0	0	0	5
Rwanda	—	0	0	0	0	0	0	0	0	0
Senegal	—	—	38	11	75	0	3	35	65	90
South Africa	—	5	—	3	7	0	2	6	9	7
Sudan	—	11	—	6	18	0	0	0	9	60
Tanzania	—	—	0	0	0	0	0	0	0	0
Togo	—	—	—	—	—	—	—	—	—	—
Uganda	—	—	0	0	1	0	0	0	0	1
Zambia	—	—	0	0	0	0	0	0	0	0
Zimbabwe	—	0	—	0	0	0	0	0	0	1
Income group										
Low income	—	2	2	1	7	0	0	1	3	11
Middle income	—	8	8	3	14	0	2	6	10	23
Urbanization										
Low	—	1	1	0	3	0	0	0	0	4
Medium	—	1	1	2	8	0	0	0	4	23
High	—	6	5	2	10	0	1	4	7	17
Region										
East	—	2	2	1	7	0	0	0	2	12
West	—	4	3	1	8	0	0	2	5	13
South	—	3	2	1	5	0	1	2	4	6
Central	—	9	8	1	26	0	2	5	10	51
Overall	—	3	3	1	8	0	0	2	4	13

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.9 Kerosene for cooking

Percentage of population	By time period (national)			By location			By expenditure quintile			
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	5	3	1	7	0	0	0	1	13
Burkina Faso	—	—	0	0	0	0	0	0	0	0
Cameroon	—	—	5	1	9	0	0	2	9	12
C. African Rep	—	—	—	—	—	—	—	—	—	—
Chad	—	—	—	—	—	—	—	—	—	—
Comoros	—	—	—	—	—	—	—	—	—	—
Congo, Dem Rep	—	—	—	—	—	—	—	—	—	—
Congo, Rep	—	—	4	1	7	0	1	4	9	7
Côte d'Ivoire	—	—	—	—	—	—	—	—	—	—
Ethiopia	—	4	3	0	25	0	0	0	0	15
Gabon	—	2	—	0	3	0	3	4	3	1
Ghana	—	—	0	0	1	0	0	0	0	1
Guinea	—	—	0	0	0	0	0	0	0	0
Kenya	—	—	9	1	40	0	0	1	6	38
Lesotho	—	23	10	7	25	0	3	11	27	10
Madagascar	—	—	0	0	0	0	0	0	0	0
Malawi	—	0	0	0	0	0	0	0	0	0
Mali	—	—	0	0	0	0	0	0	0	0
Mauritania	—	—	0	0	0	0	0	0	0	0
Mozambique	—	—	0	0	1	0	0	0	0	2
Namibia	—	3	—	1	7	0	0	7	7	0
Niger	—	—	—	—	—	—	—	—	—	—
Nigeria	—	—	21	9	45	0	1	2	26	77
Rwanda	—	0	0	0	0	0	0	0	0	0
Senegal	—	—	0	0	0	0	0	0	0	0
South Africa	—	21	—	17	24	10	36	41	17	0
Sudan	—	0	—	0	0	0	0	0	0	0
Tanzania	—	—	1	0	5	0	0	0	1	6
Togo	—	—	—	—	—	—	—	—	—	—
Uganda	—	—	1	1	5	0	0	1	2	4
Zambia	—	—	0	0	0	0	0	0	0	0
Zimbabwe	—	8	—	2	20	0	1	1	30	7
Income group										
Low income	—	8	7	2	22	0	0	1	8	26
Middle income	—	16	14	11	18	6	23	27	14	4
Urbanization										
Low	—	3	3	0	14	0	0	0	1	11
Medium	—	2	2	0	3	0	0	0	4	2
High	—	17	15	8	30	2	8	9	19	44
Region										
East	—	8	7	0	14	0	0	0	1	13
West	—	13	11	5	31	0	1	2	16	48
South	—	9	8	5	15	4	13	15	10	1
Central	—	3	3	0	14	0	0	0	1	13
Overall		9	8	3	21	1	3	4	9	23

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.10 Wood/charcoal for cooking

Percentage of population	By time period (national)			By location		By expenditure quintile				
	Early 1990s	Late 1990s	Early 2000s	Rural	Urban	1st	2nd	3rd	4th	5th
Country										
Benin	—	94	96	99	89	100	100	99	98	81
Burkina Faso	—	—	97	99	89	100	100	99	99	88
Cameroon	—	—	83	97	67	99	98	96	84	34
C. African Rep	—	—	—	—	—	—	—	—	—	—
Chad	—	—	—	—	—	—	—	—	—	—
Comoros	—	—	—	—	—	—	—	—	—	—
Congo, Dem Rep	—	—	—	—	—	—	—	—	—	—
Congo, Rep	—	—	83	96	71	99	98	92	76	51
Côte d'Ivoire	—	—	—	—	—	—	—	—	—	—
Ethiopia	—	80	89	92	70	100	100	85	87	73
Gabon	—	34	—	84	16	99	55	13	3	0
Ghana	—	—	92	98	83	100	97	98	95	69
Guinea	—	—	80	97	39	100	100	99	86	14
Kenya	—	—	87	97	46	100	100	99	92	44
Lesotho	—	56	62	74	9	100	83	78	44	5
Madagascar	—	—	98	99	96	99	100	100	99	94
Malawi	—	97	98	100	89	100	100	100	99	90
Mali	—	—	96	95	98	96	93	95	98	97
Mauritania	—	—	70	84	52	100	99	86	50	17
Mozambique	—	—	97	99	92	100	100	99	99	86
Namibia	—	66	—	89	19	100	96	82	50	0
Niger	—	—	—	—	—	—	—	—	—	—
Nigeria	—	—	77	89	52	99	98	96	73	17
Rwanda	—	99	99	100	98	100	100	100	100	97
Senegal	—	—	59	85	24	95	93	63	33	9
South Africa	—	37	—	66	14	86	57	30	14	0
Sudan	—	88	—	93	81	100	100	99	89	39
Tanzania	—	—	98	100	93	100	99	100	99	92
Togo	—	—	—	—	—	—	—	—	—	—
Uganda	—	—	97	99	88	100	100	99	98	91
Zambia	—	—	84	98	58	100	100	99	92	28
Zimbabwe	—	67	—	96	5	100	89	94	49	1
Income group										
Low income	—	84	78	95	65	99	98	95	85	54
Middle income	—	54	49	77	30	91	71	52	36	11
Urbanization										
Low	—	90	85	96	80	100	99	95	94	79
Medium	—	78	72	96	66	100	98	98	86	42
High	—	71	64	87	47	97	90	82	62	20
Region										
East	—	84	78	95	76	100	100	94	92	70
West	—	77	68	92	58	99	98	95	77	33
South	—	73	68	90	40	95	83	74	61	40
Central	—	55	49	97	64	99	96	91	78	36
Overall	—	80	74	93	58	98	95	90	79	49

Source: AICD DHS/MICS Database, 2007.

Note: Location and expenditure quintile data are for the latest available year. The shaded figures are based on method 3 (annex A1.1.5).

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.11 Refuse disposal on pit or heap (%)

Country	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5
Benin	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Burkina Faso	65.0	71.2	41.7	77.7	73.3	70.1	64.5	50.9
Cameroon	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Chad	5.5	3.7	12.5	6.0	3.9	4.8	6.0	6.3
Congo, Dem Rep	52.8	62.2	28.6	58.2	54.9	55.4	50.9	48.4
Congo, Rep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Côte d'Ivoire	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethiopia	3.1	1.6	12.2	1.4	1.8	3.1	3.0	5.3
Ghana	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Madagascar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Malawi	68.8	68.7	69.4	63.0	69.0	68.9	70.3	70.4
Mauritania	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Morocco	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nigeria	41.4	41.3	41.5	38.3	43.6	43.2	42.0	40.1
Rwanda	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Sierra Leone	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Tanzania	53.6	50.6	64.5	44.0	51.0	50.6	58.4	58.4
Uganda	36.8	33.8	51.4	30.6	35.9	39.9	42.2	39.8
Zambia	52.1	47.3	61.6	51.0	50.5	50.4	51.5	55.5
Overall	28.4	29.3	26.3	27.2	29.0	29.3	29.0	28.1
Income group								
Low income	31.6	31.4	31.3	30.2	32.2	32.5	32.2	31.2
Middle income	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Urbanization								
Low	25.9	24.5	32.3	23.0	25.3	26.1	27.6	27.1
Medium	44.4	51.2	28.0	48.1	45.7	46.0	43.0	41.8
High	26.7	27.6	25.8	24.8	28.2	27.9	27.1	25.9
Region								
East	22.9	20.1	36.6	18.3	21.4	22.7	25.2	25.8
West	12.2	10.6	15.3	11.7	13.0	12.8	12.3	11.5
South	35.6	35.2	36.9	33.5	35.2	35.1	35.9	37.0
Central	35.9	44.5	18.0	39.5	37.1	37.5	34.6	33.0

Source: AICD Expenditure Survey Database.

Note: Data are from the most recent IES/LSMS.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.12 Refuse disposal by burning or burial (%)

Country	National	Rural	Urban	Q1	Q2	Q3	Q4	Q5
Benin	86.8	89.9	82.1	93.3	93.3	91.1	87.0	77.5
Burkina Faso	28.7	28.6	28.9	21.8	26.0	28.5	31.4	31.8
Cameroon	74.2	88.1	54.9	84.7	83.8	78.7	76.5	62.7
Congo, Dem Rep	32.0	24.1	52.1	27.1	31.5	30.1	33.3	35.0
Congo, Rep	80.4	99.1	66.2	92.0	86.5	84.7	80.9	66.5
Côte d'Ivoire	77.6	99.2	50.7	96.0	90.3	86.1	76.3	57.6
Ethiopia	51.7	50.6	58.7	53.0	51.0	51.2	50.5	52.9
Ghana	95.9	99.6	89.3	99.7	99.5	97.6	96.5	90.7
Madagascar	90.2	92.3	83.5	97.7	95.5	92.9	92.8	77.9
Malawi	7.0	6.9	7.1	8.8	7.3	7.0	6.8	5.9
Mauritania	88.0	98.9	72.8	97.9	97.5	92.9	86.2	74.4
Morocco	47.8	96.9	11.0	71.6	59.7	43.5	32.8	18.9
Nigeria	40.2	52.9	24.8	39.5	40.9	42.6	40.6	38.4
Rwanda	96.8	99.7	70.8	99.8	99.6	99.1	98.8	88.1
Sierra Leone	93.3	96.2	87.5	96.2	95.4	95.7	91.4	87.4
Chad	82.1	87.2	62.3	84.0	86.4	88.0	81.4	74.9
Tanzania	41.4	47.3	19.7	53.0	44.5	47.2	38.1	32.3
Uganda	56.1	61.8	28.5	62.9	58.8	52.8	51.1	49.1
Zambia	44.2	51.9	29.2	48.0	47.5	46.9	45.0	37.3
Overall	51.1	57.0	39.5	54.9	53.7	52.4	50.0	45.9
Income group								
Low income	50.2	54.4	41.5	52.4	51.9	51.8	49.9	46.9
Middle income	59.1	94.0	29.1	77.6	69.7	58.4	51.0	37.1
Urbanization								
Low	52.6	54.3	45.0	56.7	53.9	53.6	51.2	48.6
Medium	42.7	37.7	54.7	40.5	43.5	42.2	43.6	42.6
High	50.9	67.2	32.3	55.5	54.4	52.5	49.3	43.8
Region								
East	52.2	54.8	40.4	57.4	53.4	52.9	49.9	48.5
West	22.9	24.1	20.3	24.9	24.5	23.8	22.2	19.7
South	51.8	53.0	47.9	56.6	55.1	53.7	53.1	44.5
Central	47.1	43.0	54.7	46.5	49.3	47.5	48.4	45.7

Source: AICD Expenditure Survey Database.

Note: Data are from the most recent IES/LSMS.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.13 Annual average growth rate of water services (1996–2005)

Country	Piped water			Standposts			Wells/boreholes			Surface water			Vendors		
	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban
Benin	4	7	4	13	13	13	0	0	-2	-2	-3	4	—	—	—
Burkina Faso	7	-4	6	7	11	4	0	0	-3	14	14	—	—	—	—
Cameroon	3	-3	0	2	-4	2	3	4	5	-2	-2	4	—	—	—
C. African Rep	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chad	5	8	4	-4	12	1	1	-1	7	6	9	-5	2	-3	—
Comoros	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congo, Dem Rep	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Congo, Rep	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Côte d'Ivoire	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ethiopia	5	47	8	5	12	0	7	7	-5	0	-1	-6	—	—	—
Gabon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ghana	1	-5	0	1	-3	1	3	3	12	-2	-1	-3	7	-2	11
Guinea	1	1	1	3	-3	5	2	2	0	0	-1	4	—	—	—
Kenya	0	0	0	1	2	0	1	0	9	1	1	4	—	—	—
Lesotho	0	1	4	-1	-1	-1	10	9	4	-10	-11	-16	-9	-12	0
Madagascar	0	0	2	7	19	4	1	1	1	1	1	-2	-39	—	-32
Malawi	-1	1	-1	-1	-5	4	2	2	9	3	3	4	15	15	—
Mali	7	13	8	9	24	2	0	-1	-1	4	2	20	—	—	—
Mauritania	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mozambique	2	-9	0	1	-6	1	4	4	6	-6	-6	15	—	—	—
Namibia	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Niger	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Nigeria	-3	-4	-3	-3	-5	-2	4	3	5	-1	-2	8	11	8	15
Rwanda	-6	-3	-2	1	0	7	11	10	24	2	1	12	-27	—	-20
Senegal	5	10	3	2	5	-3	-2	-2	-2	-5	-4	-24	-22	-21	—
South Africa	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sudan	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Tanzania	-6	-3	-6	4	2	7	1	1	6	1	1	9	15	31	14
Togo	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Uganda	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Zambia	0	6	0	1	-2	2	1	1	2	3	2	0	—	—	—
Zimbabwe	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Overall	1	3	2	3	3	3	3	3	4	0.4	0	2	-6	3	-2

Source: AICD DHS/MICS Database, 2007.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.14 Annual average growth rate of sanitation services (1996-2005)

Country	Flush toilet			VIP/Chemical/SAN PLAT			Traditional pit latrine			No sanitation		
	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban	National	Rural	Urban
Benin	—	—	—	31	40	30	-3	3	-5	1	1	-7
Burkina Faso	16	30	12	63	60	63	-7	-1	-16	1	1	-21
Cameroon	4	-6	1	3	-1	2	1	1	3	-2	-1	-21
C. African Rep	—	—	—	—	—	—	—	—	—	—	—	—
Chad	28	—	28	-9	-11	-7	3	3	6	2	1	-15
Comoros	—	—	—	—	—	—	—	—	—	—	—	—
Congo, Dem Rep	—	—	—	—	—	—	—	—	—	—	—	—
Congo, Rep	—	—	—	—	—	—	—	—	—	—	—	—
Cote d'Ivoire	—	—	—	—	—	—	—	—	—	—	—	—
Ethiopia	24	—	17	14	38	10	10	16	3	-2	-2	-19
Gabon	—	—	—	—	—	—	—	—	—	—	—	—
Ghana	5	-1	4	2	-3	3	1	1	4	1	2	-13
Guinea	1	16	0	—	—	—	2	3	2	-1	-2	-27
Kenya	0	1	0	4	4	3	1	0	3	3	3	-14
Lesotho	-3	-11	2	2	5	1	-1	-1	1	1	1	-1
Madagascar	0	-3	2	33	36	28	-24	-26	-19	-1	-1	-11
Malawi	2	2	2	9	7	13	2	1	2	0	-1	-11
Mali	23	53	19	5	7	6	1	2	1	-1	-2	-26
Mauritania	—	—	—	—	—	—	—	—	—	—	—	—
Mozambique	0	5	-3	10	-21	14	5	4	5	-2	-1	-12
Namibia	—	—	—	—	—	—	—	—	—	—	—	—
Niger	—	—	—	—	—	—	—	—	—	—	—	—
Nigeria	2	5	1	-7	-12	-2	2	1	5	1	1	-11
Rwanda	0	0	4	18	27	12	0	-1	3	4	3	4
Senegal	18	37	14	-8	-10	-1	0	9	-9	-3	-2	-24
South Africa	—	—	—	—	—	—	—	—	—	—	—	—
Sudan	—	—	—	—	—	—	—	—	—	—	—	—
Tanzania	7	-1	10	18	27	17	0	1	1	3	3	-16
Togo	—	—	—	—	—	—	—	—	—	—	—	—
Uganda	—	—	—	—	—	—	—	—	—	—	—	—
Zambia	0	7	0	18	15	22	1	1	1	1	1	-23
Zimbabwe	—	—	—	—	—	—	—	—	—	—	—	—
Overall	7	9	7	12	12	13	0	1	-1	0	0	-15

Source: AICD DHS/MICS Database, 2007.

ANNEX 1 CROSS-COUNTRY TABLES

Table A1.4.15 Annual average growth rate of electricity and landline telephones (1996-2005)

Country	Electricity			Landline Telephone		
	National	Rural	Urban	National	Rural	Urban
Benin	7	11	7	—	—	—
Burkina Faso	8	17	6	10	14	9
Cameroon	2	-4	2	0	-12	-3
C. African Rep	—	—	—	—	—	—
Chad	7	8	9	10	—	12
Comoros	—	—	—	—	—	—
Congo, Dem Rep	—	—	—	—	—	—
Congo, Rep	—	—	—	—	—	—
Côte d'Ivoire	—	—	—	—	—	—
Ethiopia	2	24	3	14	51	16
Gabon	—	—	—	—	—	—
Ghana	3	2	1	15	15	13
Guinea	3	8	4	14	8	15
Kenya	2	2	2	20	31	16
Lesotho	18	13	-12	—	—	—
Madagascar	8	20	5	29	44	25
Malawi	5	9	3	—	—	—
Mali	8	25	8	16	13	18
Mauritania	—	—	—	—	—	—
Mozambique	2	-10	2	6	15	3
Namibia	—	—	—	—	—	—
Niger	—	—	—	—	—	—
Nigeria	3	3	2	11	23	8
Rwanda	-1	6	2	-1	13	1
Senegal	6	13	3	—	—	—
South Africa	—	—	—	—	—	—
Sudan	—	—	—	—	—	—
Tanzania	5	9	6	—	—	—
Togo	—	—	—	—	—	—
Uganda	—	—	—	—	—	—
Zambia	1	9	1	—	—	—
Zimbabwe	—	—	—	—	—	—
Overall	5	9	3	12	19	11

Source: AICD DHS/MICS Database, 2007.