Appendix A. Urban Data Tables

Assembling comparable data on the world's urban places has been surprisingly difficult. Despite the importance of cities as home to more than 45 percent of the world's people, data that characterize the urban experience are unexpectedly sparse.

Those data sets that do exist are scattered among the international statistical agencies according to their topical mandates. For example, the United Nations Population Division makes estimates of urban demographic parameters (and contrasts them to the rural experience) and estimates population in the world's largest cities. The United Nations Environment Programme (UNEP) and the World Health Organization (WHO) monitor air pollution in about 50 of the world's cities under their Global Environmental Monitoring System. WHO also provides urban/rural estimates of access to safe drinking water and sanitation services, while the United Nations Children's Fund (UNICEF) provides similar data on access to health services. Yet these few global data efforts are not designed to provide an integrated or comprehensive view of the urban experience.

Even within cities, topical responsibility can make it difficult to find data. Some kinds of useful data (e.g., measures of the economic importance of a city or urban/rural migration rates) are simply never collected. Urban areas are often spread across many jurisdictions, and, consequently, no one agency is responsible for collecting and reporting data on any given topic for the whole. Different administrative units might have noncontiguous but overlapping areas, further compounding the confusion. In the United States, for example, port authorities can include parts of many cities (e.g., the San Diego Bay area) and even parts of separate states (e.g., the New York Port Authority). Difficulties in creating comprehensive, international data sets are exacerbated by differences among countries in the definition of what constitutes an urban place and in the priority assigned to data collection, given specific local or national needs. Most national and international programs that promise globally comparable urban data sets have not yet produced any publishable findings.

The United Nations Centre for Human Settlements (Habitat) is the only international institution with a specific mandate to assemble information on urban areas. While recognizing the limitations of definition, comparability, and comprehensiveness, Habitat has nonetheless set out to develop a set of indicators on the world's cities that "would create a substantially enhanced capacity to make an accurate description of shelter and urbanization conditions." Habitat's efforts to compile these data, while fraught with difficulties, have begun to bear fruit as countries such as India begin to assemble new data sets. (See Data Table A.4.)

Once developed, a common set of urban indicators would be enormously valuable both locally and internationally. Such indicators would provide a global context for local problems, helping local leaders determine which of their problems are unique and which they share with other cities. Ideally, such a shared data set would result in increased communication and the sharing of local solutions to common problems. A common set of urban indicators might also promote the collection, sharing, and integration of data and information within cities.

Local policymakers need information to make wise management decisions. In addition, policymakers at regional, national, and international levels need information on urban issues to set priorities, allocate resources, and help construct solutions to urban problems.

Data Table A.1 Urban Indicators, 1975–2025

	Urban Population (000)			Percent Urban			1990-95 Urban Growth	1990-95 Rural Growth	Number of Cities Greater Than 750,000	Dependency Ratio (Dependent population, ages <15 and >65, as a percent of the potential labor force, ages 15 to 65)		People in Absolute Poverty (percent) 1980-1990		
	1975	1995	2025	1975	1995	2025	Rates	Rates	Population {a}	Urban	Rural	Total	Urban	Rural
WORLD	**1,538,346**	**2,584,454**	**5,065,334**	**38**	**45**	**61**	**2.5**	**0.8**	**369**	**X**	**X**	**X**	**X**	**X**
AFRICA	**104,123**	**250,276**	**804,239**	**25**	**34**	**54**	**4.4**	**2.0**	**35**	**X**	**X**	**X**	**X**	**X**
Algeria	6,460	15,591	33,675	40	56	74	3.8	0.5	1	44	46	23	20	25
Angola	1,087	3,569	14,799	18	32	56	6.3	2.6	1	X	X	X	X	65
Benin	620	1,691	6,344	20	31	52	4.6	2.5	0	49	51	X	X	65
Botswana	91	418	1,651	12	28	55	7.0	1.7	0	33	55	43	30	55
Burkina Faso	394	2,809	14,376	6	27	66	11.2	0.3	0	43	49	X	X	90
Burundi	118	480	2,853	3	8	21	6.6	2.7	0	43	50	84	55	85
Cameroon	2,022	5,938	19,504	27	45	67	4.9	1.2	2	44	50	37	15	40
Central African Rep	693	1,301	3,745	34	39	59	3.4	1.9	0	49	49	X	X	90
Chad	627	1,362	4,970	16	21	39	3.6	2.5	0	42	50	54	30	56
Congo	504	1,523	4,347	35	59	77	4.9	0.6	1	46	51	X	X	80
Cote d'Ivoire	2,168	6,211	23,611	32	44	64	5.0	2.4	1	49	54	X	30	X
Egypt	16,877	28,170	60,519	43	45	62	2.6	1.9	3	39	45	23	21	25
Equatorial Guinea	61	169	547	27	42	69	5.9	0.4	0	46	48	67	60	70
Eritrea	256	607	2,511	12	17	36	4.4	2.4	0	X	X	X	X	X
Ethiopia	3,061	7,371	37,929	10	13	30	4.7	2.7	1	44	50	60	X	63
Gabon	195	660	1,877	31	50	70	4.7	1.2	0	40	43	X	X	41
Gambia, The	91	286	1,022	17	26	49	6.2	3.1	0	47	47	X	X	85
Ghana	2,955	6,333	21,934	30	36	58	4.3	2.3	1	45	50	42	20	54
Guinea	676	1,981	8,039	16	30	53	5.8	2.0	1	48	51	X	X	70
Guinea-Bissau	100	238	882	16	22	45	4.4	1.6	0	X	X	X	X	75
Kenya	1,775	7,817	32,616	13	28	51	6.8	2.5	1	41	54	52	10	55
Lesotho	128	473	1,973	11	23	47	6.2	1.8	0	44	45	54	50	55
Liberia	488	1,366	4,674	30	45	65	4.6	2.3	0	49	51	20	X	23
Libya	1,491	4,649	11,951	61	86	93	4.3	(1.1)	2	48	50	X	X	X
Madagascar	1,253	4,003	17,378	16	27	50	5.8	2.3	0	X	X	43	21	50
Malawi	402	1,505	7,083	8	14	32	6.2	3.1	0	X	X	82	25	90
Mali	1,000	2,909	12,277	16	27	50	5.7	2.3	0	48	51	54	27	60
Mauritania	278	1,224	3,255	20	54	73	5.4	(0.3)	0	46	51	X	X	80
Mauritius	388	453	856	43	41	58	1.2	1.1	0	30	34	8	X	12
Morocco	6,520	13,071	26,917	38	48	66	3.1	1.2	2	38	47	37	28	45
Mozambique	905	5,481	21,468	9	34	61	7.4	0.3	1	45	50	59	40	65
Namibia	186	576	1,939	21	37	64	5.9	1.0	0	42	51	X	X	X
Niger	507	1,558	8,160	11	17	36	5.6	2.9	0	X	X	X	X	35
Nigeria	14,676	43,884	146,948	23	39	62	5.2	1.7	2	46	52	40	21	51
Rwanda	175	483	2,367	4	6	15	4.2	2.5	0	44	53	85	30	90
Senegal	1,643	3,512	10,505	34	42	62	3.7	1.7	1	48	47	X	X	70
Sierra Leone	620	1,632	5,136	21	36	59	4.8	1.2	0	X	X	X	X	65
Somalia	1,164	2,382	9,760	21	26	46	2.5	0.9	1	X	X	60	X	70
South Africa	12,314	21,073	48,673	48	51	69	2.9	1.6	6	35	48	X	X	X
Sudan	3,033	6,915	27,075	19	25	46	4.4	2.1	1	44	48	X	X	85
Swaziland	67	267	933	14	31	57	6.2	1.4	0	33	52	48	45	50
Tanzania	1,602	7,230	30,344	10	24	48	6.1	2.0	1	44	53	58	10	60
Togo	373	1,276	4,906	16	31	52	4.8	2.5	0	46	50	X	X	30
Tunisia	2,797	5,093	9,784	50	57	74	2.8	0.9	1	37	44	17	20	15
Uganda	933	2,670	13,818	8	13	29	5.8	3.1	1	45	52	X	X	80
Zaire	6,860	12,766	52,129	30	29	50	3.9	2.9	1	52	51	70	X	90
Zambia	1,686	4,071	11,467	35	43	60	3.5	2.6	1	50	52	64	47	80
Zimbabwe	1,202	3,619	10,874	20	32	55	5.0	1.5	1	36	53	X	X	60
EUROPE	**453,668**	**535,052**	**597,660**	**67**	**74**	**83**	**0.6**	**(1.0)**	**79**	**X**	**X**	**X**	**X**	**X**
Albania	794	1,285	2,661	33	37	57	1.8	0.4	0	32	40	X	X	X
Austria	4,034	4,424	5,651	53	56	68	0.7	0.6	1	32	34	X	X	X
Belarus, Rep	4,714	7,215	8,361	50	71	84	1.1	(2.9)	1	X	X	X	X	X
Belgium	9,298	9,809	10,236	95	97	98	0.4	(2.5)	1	X	X	X	X	X
Bosnia and Herzegovina	1,172	1,695	3,102	31	49	69	(2.5)	(6.1)	0	X	X	X	X	X
Bulgaria	5,017	6,201	6,450	58	71	83	0.4	(2.4)	1	31	40	X	X	X
Croatia, Rep	1,924	2,896	3,428	45	64	81	1.4	(2.6)	0	X	X	X	X	X
Czech Rep	5,780	6,736	8,096	58	65	76	0.1	(0.3)	1	32	36	X	X	X
Denmark	4,140	4,414	4,577	82	85	90	0.3	(0.4)	1	33	32	X	X	X
Estonia, Rep	968	1,118	1,181	68	73	83	(0.2)	(1.5)	0	33	39	X	X	X
Finland	2,745	3,225	4,129	58	63	76	1.0	(0.4)	1	31	35	X	X	X
France	38,481	42,203	50,055	73	73	82	0.5	0.4	4	34	37	X	X	X
Germany	63,866	70,616	70,310	81	87	92	0.8	(1.2)	16	31	36	X	X	X
Greece	5,003	6,817	7,806	55	65	79	1.2	(1.0)	2	31	37	X	X	X
Hungary	5,560	6,541	7,393	53	65	79	0.3	(1.9)	1	32	34	X	X	X
Iceland	189	246	321	87	92	95	1.3	(1.1)	0	35	39	X	X	X
Ireland	1,704	2,043	2,740	54	58	71	0.5	0.0	1	34	39	X	X	X
Italy	36,394	38,101	39,895	66	67	76	0.0	0.1	6	X	X	X	X	X
Latvia, Rep	1,618	1,863	1,943	65	73	83	(0.4)	(2.0)	1	33	39	X	X	X
Lithuania, Rep	1,842	2,667	3,213	56	72	84	0.9	(2.3)	0	32	40	X	X	X
Macedonia, former Yugoslav Rep	847	1,294	1,914	51	60	74	1.8	0.1	0	X	X	X	X	X
Moldova, Rep	1,376	2,293	3,647	36	52	71	1.9	(1.3)	0	X	X	X	X	X
Netherlands	12,070	13,801	15,105	88	89	93	0.8	0.2	2	X	X	X	X	X
Norway	1,842	2,667	3,213	68	73	82	0.7	(0.2)	0	33	44	X	X	X
Poland, Rep	18,850	24,853	32,565	55	65	78	0.9	(1.1)	5	32	38	X	X	X
Portugal	2,515	3,496	5,374	28	36	55	1.1	(0.7)	1	30	34	X	X	X
Romania	9,809	12,650	15,499	46	55	71	0.5	(1.3)	1	30	38	X	X	X
Russian Federation	89,168	111,736	118,705	66	76	86	0.4	(1.7)	16	X	X	X	X	X
Slovak Rep	2,191	3,146	4,451	46	59	74	1.2	(0.7)	0	X	X	X	X	X
Slovenia, Rep	738	1,236	1,445	42	64	79	1.8	(2.1)	0	X	X	X	X	X
Spain	24,765	30,292	31,886	70	76	85	0.5	(0.7)	2	31	34	X	X	X
Sweden	6,778	7,296	8,583	83	83	88	0.5	0.5	1	36	39	X	X	X
Switzerland	3,534	4,379	5,762	56	61	74	1.5	0.4	1	31	35	X	X	X
Ukraine	28,564	36,099	40,195	58	70	83	0.7	(1.9)	7	X	X	X	X	X
United Kingdom	49,896	52,119	57,375	89	89	93	0.4	(0.4)	4	35	37	X	X	X
Yugoslavia, Fed Rep	3,905	6,134	8,479	43	57	74	2.6	(0.2)	1	30	35	X	X	X

	Urban Population (000)			Percent Urban			1990-95 Urban Growth Rates	1990-95 Rural Growth Rates	Number of Cities Greater Than 750,000 Population {a}	Dependency Ratio (Dependent population, ages <15 and >65, as a percent of the potential labor force, ages 15 to 65)		People in Absolute Poverty (percent) 1980-1990		
	1975	1995	2025	1975	1995	2025				Urban	Rural	Total	Urban	Rural
NORTH & CENTRAL AMERICA	**235,306**	**331,761**	**507,609**	**57**	**68**	**79**	**1.8**	**0.4**	**64**	**X**	**X**	**X**	**X**	**X**
Belize	67	101	231	50	47	60	2.3	3.0	0	X	X	X	X	65
Canada	17,548	22,593	32,018	76	77	84	1.2	1.1	5	32	35	X	X	X
Costa Rica	814	1,702	3,843	41	50	69	3.5	1.4	1	36	43	29	24	34
Cuba	5,977	8,389	10,882	64	76	86	1.5	(1.1)	1	31	36	X	X	35
Dominican Rep	2,289	5,051	8,890	45	65	80	3.3	(0.3)	2	38	43	55	45	70
El Salvador	1,651	2,599	6,015	40	45	62	2.7	1.8	0	41	48	51	20	75
Guatemala	2,211	4,404	13,389	37	41	62	3.9	2.2	1	44	50	71	66	74
Haiti	1,069	2,266	7,076	22	32	54	4.0	1.2	1	42	45	76	65	80
Honduras	969	2,482	6,870	32	44	64	4.5	1.8	0	42	50	37	14	55
Jamaica	888	1,314	2,319	44	54	70	1.5	(0.3)	0	34	42	X	X	80
Mexico	36,948	70,535	117,222	63	75	86	2.8	(0.0)	8	39	44	30	23	51
Nicaragua	1,220	2,787	7,072	50	63	78	4.8	2.1	1	48	51	20	21	19
Panama	839	1,401	2,620	49	53	70	2.4	1.2	1	35	43	42	21	65
Trinidad and Tobago	637	938	1,511	63	72	84	1.9	(0.8)	0	38	44	X	X	39
United States	159,069	200,695	281,179	74	76	85	1.3	0.2	43	34	36	X	X	X
SOUTH AMERICA	**137,578**	**249,331**	**406,679**	**64**	**78**	**88**	**2.5**	**(0.8)**	**31**	**X**	**X**	**X**	**X**	**X**
Argentina	21,029	30,463	43,083	81	88	93	1.6	(1.3)	4	37	42	16	15	20
Bolivia	1,975	4,505	10,370	42	61	79	4.1	0.0	1	41	46	60	30	86
Brazil	66,065	126,599	204,791	61	78	89	2.7	(1.4)	14	36	44	47	38	73
Chile	8,101	11,966	17,684	78	84	89	1.8	0.9	0	36	41	X	X	25
Colombia	14,434	25,526	41,532	61	73	84	2.4	(0.3)	4	35	43	42	40	45
Ecuador	2,926	6,698	13,456	42	58	76	3.5	0.5	2	38	46	56	40	65
Guyana	220	302	668	30	36	59	2.4	0.1	0	33	38	X	X	60
Paraguay	1,045	2,613	6,476	39	53	72	4.3	1.2	0	38	48	35	19	50
Peru	9,319	17,175	30,653	61	72	84	2.6	0.3	1	37	45	32	13	75
Suriname	163	213	418	45	50	70	2.3	(0.0)	0	X	X	X	X	57
Uruguay	2,349	2,877	3,491	83	90	95	0.9	(2.1)	1	37	33	13	10	29
Venezuela	9,911	20,281	33,791	78	93	97	2.8	(3.5)	4	38	47	31	28	58
ASIA	**592,282**	**1,197,970**	**2,718,435**	**25**	**35**	**55**	**3.3**	**0.8**	**154**	**X**	**X**	**X**	**X**	**X**
Afghanistan, Islamic State	2,040	4,026	18,059	13	20	40	7.7	5.4	1	43	43	53	18	60
Armenia	1,780	2,473	3,783	63	69	80	1.8	0.6	1	X	X	X	X	X
Azerbaijan	2,930	4,216	7,194	52	56	71	1.7	0.6	1	X	X	X	X	X
Bangladesh	7,108	22,034	78,430	9	18	40	5.3	1.5	3	X	X	78	X	86
Bhutan	39	105	597	3	6	19	4.8	1.0	0	X	X	X	X	90
Cambodia	731	2,123	8,567	10	21	44	6.2	2.2	0	44	45	X	X	X
China	160,047	369,492	831,880	17	30	55	4.0	(0.0)	51	28	36	9	X	13
Georgia, Rep	2,432	3,190	4,544	50	58	74	1.0	(1.0)	1	X	X	X	X	X
India	132,272	250,681	629,757	21	27	45	2.9	1.6	34	36	41	40	33	42
Indonesia	26,259	69,992	167,393	19	35	61	4.5	0.1	9	34	39	25	20	27
Iran, Islamic Rep	15,278	39,716	92,491	46	59	75	3.6	1.3	5	47	53	X	X	30
Iraq	6,765	15,258	36,435	61	75	85	3.2	0.4	1	45	52	X	X	30
Israel	2,994	5,098	7,308	87	91	94	3.9	3.1	1	38	40	X	X	X
Japan	84,409	97,120	103,190	76	78	85	0.4	(0.2)	8	29	36	X	X	X
Jordan	1,438	3,887	10,107	55	71	84	5.9	2.6	1	45	50	16	14	17
Kazakhstan, Rep	7,374	10,218	16,257	52	60	75	1.2	(0.5)	1	X	X	X	X	X
Korea, Dem People's Rep	9,356	14,650	25,094	56	61	75	2.4	1.2	1	X	X	X	X	20
Korea, Rep	16,947	36,572	50,987	48	81	94	2.9	(5.7)	6	28	31	5	5	4
Kuwait	844	1,501	2,765	84	97	99	(6.3)	(13.0)	1	X	X	X	X	X
Kyrgyz Rep	1,250	1,847	4,079	38	39	57	2.1	1.4	0	X	X	X	X	X
Lao People's Dem Rep	344	1,060	4,316	11	22	45	6.1	2.2	0	48	48	X	X	85
Lebanon	1,849	2,622	4,154	67	87	94	4.1	(1.4)	0	39	44	X	X	15
Malaysia	4,616	10,814	22,942	38	54	73	3.9	0.8	1	39	45	16	8	22
Mongolia	704	1,468	2,926	49	61	76	3.0	0.6	0	X	X	X	X	X
Myanmar	7,282	12,188	35,759	24	26	47	3.3	1.8	1	38	42	35	X	40
Nepal	649	2,996	13,959	5	14	34	7.1	2.0	0	44	46	60	51	61
Oman	53	285	1,983	6	13	33	7.8	3.7	0	X	X	X	X	6
Pakistan	19,733	48,742	161,579	26	35	57	4.4	2.0	8	44	48	28	26	29
Philippines	15,294	36,614	77,622	36	54	74	4.2	(0.1)	2	38	45	54	40	64
Saudi Arabia	4,257	14,339	37,618	59	80	88	2.9	(0.6)	2	X	X	X	X	X
Singapore	2,263	2,848	3,355	100	100	100	1.0	0.0	1	29	0	X	X	X
Sri Lanka	2,998	4,108	10,660	22	22	43	2.2	1.0	0	33	37	39	15	46
Syrian Arab Rep	3,352	7,676	23,311	45	52	70	4.3	2.6	2	48	54	X	X	54
Tajikistan, Rep	1,223	1,964	5,881	36	32	50	2.9	2.9	0	X	X	X	X	X
Thailand	6,244	11,787	28,756	15	20	39	2.5	0.8	1	28	36	30	17	34
Turkey	16,651	42,598	79,102	42	69	87	4.4	(2.5)	5	36	43	X	X	14
Turkmenistan, Rep	1,198	1,839	4,067	48	45	61	2.3	2.3	0	X	X	X	X	X
United Arab Emirates	330	1,600	2,700	65	84	91	3.4	(0.9)	0	30	36	X	X	X
Uzbekistan, Rep	5,465	9,430	22,300	39	41	59	2.6	2.0	1	X	X	X	X	X
Viet Nam	9,021	15,479	46,135	19	21	39	3.1	2.0	2	36	44	54	X	60
Yemen, Rep	1,147	4,877	19,674	16	34	58	8.0	3.6	0	X	X	X	X	X
OCEANIA	**15,389**	**20,063**	**30,712**	**72**	**70**	**75**	**1.5**	**1.7**	**6**	**X**	**X**	**X**	**X**	**X**
Australia	11,943	15,318	21,852	86	85	89	1.3	1.9	5	33	34	X	X	X
Fiji	212	319	692	37	41	60	2.2	1.1	0	X	X	X	X	20
New Zealand	2,552	3,077	4,011	83	86	92	1.5	(0.4)	1	X	X	X	X	X
Papua New Guinea	326	690	2,431	12	16	32	3.6	2.0	0	X	X	73	10	75
Solomon Islands	17	65	323	9	17	38	6.5	2.7	0	X	X	X	X	60

Sources: United Nations Population Division and United Nations Development Programme.

Notes: a. Cities greater than 750,000 population as assessed in 1990.
World and regional totals include countries not listed. 0 = zero or less than half of the unit of measure. X = not available or indeterminate; negative numbers are shown in parentheses.
For additional information, see Sources and Technical Notes.

Data Table A.2 Access to Safe Drinking Water and Sanitation, 1980–95

	Access to Safe Drinking Water (percent)		Access to Sanitation Services (percent)		Urban Household Access to Safe Drinking Water Sources (percent of all households)				Urban Household Access to Sanitation Services (percent of all households)			
	Urban	Rural	Urban	Rural	House or Yard Pipe	Public Standpipe	Borehole and Pump	Other	House to Sewer	Septic System	Wet Latrine	Other
WORLD												
AFRICA												
Algeria	X	X	X	X	X	X	X	X	X	X	X	X
Angola	69.0	15.0	26.0	9.0	45.0	18.0	4.0	2.0	8.0	8.0	0.0	10.0
Benin	41.0	43.0	60.0	4.0	X	X	X	X	X	X	X	X
Botswana	100.0	88.0	100.0	85.0	X	X	X	X	X	X	X	X
Burkina Faso	52.9	75.0	50.0	10.0	23.0	30.0	0.0	0.0	X	X	X	X
Burundi	92.0	49.0	74.0	50.0	30.0	62.0	0.0	0.0	X	X	X	X
Cameroon	42.0	45.0	X	X	X	X	X	X	X	X	X	X
Central African Rep	18.0	18.0	X	X	8.0	7.0	1.0	0.0	X	X	X	X
Chad	48.0	17.0	72.0	7.0	10.0	28.0	0.0	10.0	0.0	2.0	0.0	71.0
Congo	92.0	2.0	X	2.0	X	X	X	X	X	X	X	X
Cote d'Ivoire	59.0	81.0	100.0	41.0	59.0	0.0	0.0	0.0	87.0	13.0	0.0	0.0
Egypt	82.0	50.0	23.0	6.0	X	X	X	X	X	X	X	X
Equatorial Guinea	88.0	100.0	100.0	15.0	13.2	X	36.1	38.7	87.0	13.0	X	X
Eritrea	X	X	X	X	X	X	X	X	X	X	X	X
Ethiopia	70.0	11.0	97.0	7.0	X	X	X	X	X	X	X	X
Gabon	90.0	50.0	X	X	X	X	X	X	X	X	X	X
Gambia, The	91.6	50.8	50.0	29.0	42.0	50.0	0.0	0.0	11.0	17.0	0.0	23.0
Ghana	70.0	49.0	64.0	33.0	45.8	6.7	10.0	7.5	0.0	20.0	0.0	45.0
Guinea	61.0	62.0	17.8	1.1	61.0	0.0	0.0	0.0	0.0	17.8	0.0	0.0
Guinea-Bissau	38.0	57.0	24.0	19.0	35.4	0.0	0.0	0.0	1.2	8.0	0.0	15.6
Kenya	67.0	49.0	63.9	78.6	X	X	X	X	X	X	X	X
Lesotho	57.0	57.0	3.0	44.0	31.0	26.8	0.0	0.0	1.6	2.4	0.0	0.0
Liberia	58.0	8.0	49.0	4.0	29.8	1.6	0.0	26.6	2.0	20.0	0.0	28.0
Libya	100.0	80.0	100.0	85.0	X	X	X	X	X	X	X	X
Madagascar	83.0	10.0	49.2	3.6	X	X	X	X	X	X	X	X
Malawi	52.0	44.0	89.0	60.0	35.4	14.6	1.0	1.0	15.0	0.0	0.0	75.0
Mali	36.0	38.0	99.0	24.0	17.6	14.4	4.8	1.2	7.2	6.8	0.0	86.0
Mauritania	84.0	89.0	34.0	X	X	X	X	X	X	X	X	X
Mauritius	95.0	95.0	98.0	97.0	95.0	0.0	0.0	0.0	42.0	41.0	4.0	12.0
Morocco	98.0	14.0	66.5	17.9	X	X	X	X	X	X	X	X
Mozambique	17.0	40.0	70.0	4.6	9.5	8.2	0.0	0.3	13.0	7.0	0.0	48.0
Namibia	87.0	42.0	76.0	41.0	72.0	14.2	0.8	0.0	69.3	0.0	0.0	7.7
Niger	46.0	55.0	69.0	4.0	29.0	14.0	3.0	0.0	0.0	3.0	0.0	67.0
Nigeria	63.0	26.0	51.0	29.0	32.7	24.2	3.6	2.5	0.0	35.0	0.0	16.5
Rwanda	84.0	67.0	88.0	17.0	X	X	X	X	X	X	X	X
Senegal	84.0	28.1	92.1	40.0	54.1	30.0	0.9	0.0	25.4	0.0	50.0	11.1
Sierra Leone	58.0	21.0	55.0	31.0	X	X	X	X	X	X	X	X
Somalia	50.0	29.0	41.0	5.0	X	X	X	X	X	X	X	X
South Africa	X	X	X	X	X	X	X	X	X	X	X	X
Sudan	66.0	43.0	85.8	14.0	31.9	12.8	0.0	21.3	2.6	12.6	0.0	70.2
Swaziland	41.0	44.0	78.0	35.0	37.2	3.8	0.0	0.0	37.0	42.0	0.0	0.0
Tanzania	75.0	46.0	76.0	77.0	X	X	X	X	X	X	X	X
Togo	74.0	58.0	12.2	20.0	30.1	42.5	0.2	1.2	0.0	4.1	0.4	7.7
Tunisia	100.0	89.0	98.0	93.0	93.3	4.3	0.4	2.0	55.0	35.0	2.3	6.0
Uganda	47.0	32.0	73.6	57.8	X	X	X	X	X	X	X	X
Zaire	37.0	23.0	20.8	3.6	X	X	X	X	X	X	X	X
Zambia	64.0	27.0	67.0	25.0	X	X	X	X	X	X	X	X
Zimbabwe	95.0	80.0	95.0	22.0	X	X	X	X	X	X	X	X
EUROPE												
Albania	100.0	95.0	100.0	100.0	X	X	X	X	X	X	X	X
Austria	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Belarus, Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Belgium	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Bosnia and Herzegovina	100.0	X	X	X	X	X	X	X	X	X	X	X
Bulgaria	100.0	96.0	100.0	100.0	X	X	X	X	X	X	X	X
Croatia, Rep	100.0	X	X	X	X	X	X	X	X	X	X	X
Czech Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Denmark	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Estonia, Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Finland	99.0	90.0	90.0	90.0	X	X	X	X	X	X	X	X
France	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Germany	100.0	100.0	X	X	X	X	X	X	X	X	X	X
Greece	100.0	95.0	100.0	95.0	X	X	X	X	X	X	X	X
Hungary	100.0	95.0	100.0	100.0	X	X	X	X	X	X	X	X
Iceland	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Ireland	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Italy	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Latvia, Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Lithuania, Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Macedonia, former Yugoslav Rep	100.0	X	X	X	X	X	X	X	X	X	X	X
Moldova, Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Netherlands	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Norway	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Poland, Rep	94.0	82.0	82.0	82.0	X	X	X	X	X	X	X	X
Portugal	97.0	90.0	100.0	95.0	X	X	X	X	X	X	X	X
Romania	100.0	90.0	100.0	95.0	X	X	X	X	X	X	X	X
Russian Federation	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Slovak Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Slovenia, Rep	100.0	X	X	X	X	X	X	X	X	X	X	X
Spain	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Sweden	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Switzerland	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Ukraine	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
United Kingdom	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Yugoslavia, Fed Rep	100.0	X	X	X	X	X	X	X	X	X	X	X

	Access to Safe Drinking Water (percent)		Access to Sanitation Services (percent)		Urban Household Access to Safe Drinking Water Sources (percent of all households)				Urban Household Access to Sanitation Services (percent of all households)			
	Urban	Rural	Urban	Rural	House or Yard Pipe	Public Standpipe	Borehole and Pump	Other	House to Sewer	Septic System	Wet Latrine	Other
NORTH & CENTRAL AMERICA												
Belize	96.0	82.0	24.2	88.9	X	X	X	X	16.1	8.1	0.0	0.0
Canada	100.0	100.0	X	X	X	X	X	X	X	X	X	X
Costa Rica	88.0	99.0	99.4	98.2	83.6	0.0	0.0	1.4	96.0	0.0	0.0	3.4
Cuba	88.0	99.0	71.3	51.3	X	X	X	X	X	X	X	X
Dominican Rep	74.0	67.0	93.0	71.0	X	X	X	X	X	X	X	X
El Salvador	78.0	37.0	92.0	59.0	67.9	10.1	0.0	0.0	61.0	5.0	0.0	26.0
Guatemala	92.0	43.0	72.0	52.0	X	X	X	X	X	X	X	X
Haiti	37.0	23.0	41.8	16.2	X	X	X	X	X	X	X	X
Honduras	81.0	53.0	88.2	53.2	58.0	6.7	16.3	0.0	49.5	0.0	0.0	38.7
Jamaica	96.0	46.0	14.0	X	X	X	X	X	X	X	X	X
Mexico	91.0	62.0	85.5	25.0	X	X	X	X	X	X	X	X
Nicaragua	81.0	27.0	32.0	X	X	X	X	X	X	X	X	X
Panama	100.0	100.0	100.0	73.2	98.6	0.0	0.0	1.4	50.0	18.1	0.0	31.9
Trinidad and Tobago	100.0	88.0	100.0	92.0	X	X	X	X	X	X	X	X
United States	X	X	X	X	X	X	X	X	X	X	X	X
SOUTH AMERICA												
Argentina	73.0	17.0	100.0	29.0	X	X	X	X	X	X	X	X
Bolivia	78.0	22.0	62.9	17.5	39.0	39.0	0.0	0.0	36.2	12.7	X	13.9
Brazil	85.0	31.0	84.0	32.0	X	X	X	X	36.2	12.7	0.0	0.0
Chile	94.0	37.0	84.8	6.0	94.0	0.0	0.0	0.0	84.8	0.0	0.0	0.0
Colombia	88.0	48.0	73.2	36.8	74.7	0.0	0.0	13.3	73.2	0.0	0.0	0.0
Ecuador	82.0	55.0	86.0	34.2	76.2	4.5	0.0	1.3	60.8	0.0	16.5	8.7
Guyana	90.0	51.0	100.0	84.0	83.0	0.0	0.0	7.0	0.0	36.0	0.0	64.0
Paraguay	61.0	9.0	31.0	60.0	X	X	X	X	X	X	X	X
Peru	74.4	23.6	62.0	9.3	74.4	0.0	0.0	0.0	62.0	0.0	0.0	0.0
Suriname	82.0	56.0	64.0	36.0	X	X	X	X	X	X	X	X
Uruguay	100.0	5.0	60.0	65.0	X	X	X	X	X	X	X	X
Venezuela	80.0	75.0	97.0	72.0	86.1	0.0	0.0	0.0	X	X	X	X
ASIA												
Afghanistan, Islamic State	39.0	4.9	27.6	1.2	7.3	11.7	10.2	9.8	5.0	18.0	0.0	3.0
Armenia	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Azerbaijan	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Bangladesh	100.0	88.8	44.4	27.7	18.9	9.5	69.9	1.7	0.0	0.0	27.0	16.0
Bhutan	75.0	54.0	89.6	17.9	75.0	0.0	0.0	0.0	70.0	10.0	4.0	4.0
Cambodia	X	X	X	X	X	X	X	X	X	X	X	X
China	93.0	89.0	70.0	6.0	X	X	X	X	0.0	0.0	70.0	0.0
Georgia, Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
India	85.0	79.0	70.0	12.0	44.1	24.1	16.8	0.0	26.0	27.0	0.0	17.0
Indonesia	78.0	54.0	78.0	39.0	21.6	10.3	16.9	29.1	0.0	58.0	0.0	20.0
Iran, Islamic Rep	89.0	77.0	82.9	36.5	X	X	X	X	X	X	X	X
Iraq	50.0	30.0	40.0	25.0	X	X	X	X	X	X	X	X
Israel	100.0	97.0	99.0	95.0	X	X	X	X	X	X	X	X
Japan	100.0	85.0	X	X	X	X	X	X	X	X	X	X
Jordan	91.8	82.8	41.1	1.7	X	X	X	X	X	X	X	X
Kazakhstan, Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Korea, Dem People's Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Korea, Rep	100.0	100.0	100.0	12.0	X	X	X	X	X	X	X	X
Kuwait	100.0	X	100.0	X	X	X	X	X	X	X	X	X
Kyrgyz Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Lao People's Dem Rep	40.0	39.0	96.0	12.0	34.3	2.9	0.7	2.1	0.0	38.0	44.0	15.0
Lebanon	99.0	99.0	89.0	89.5	96.0	0.0	0.0	4.0	81.0	9.0	X	X
Malaysia	96.0	66.0	94.0	94.0	X	X	X	X	X	X	X	X
Mongolia	100.0	58.0	100.0	47.0	X	X	X	X	X	X	X	X
Myanmar	36.0	39.0	45.0	40.5	14.8	19.4	1.8	0.0	3.0	17.0	21.0	5.0
Nepal	66.0	41.0	69.0	16.0	37.4	0.0	28.6	0.0	0.0	45.0	9.0	16.0
Oman	97.0	50.0	97.0	68.0	X	X	X	X	X	X	X	X
Pakistan	77.0	52.0	62.0	19.0	X	X	X	X	X	X	X	X
Philippines	93.0	77.0	87.0	67.0	45.0	16.0	29.0	3.0	X	X	X	X
Saudi Arabia	100.0	74.0	100.0	30.0	X	X	X	X	X	X	X	X
Singapore	100.0	X	99.0	X	X	X	X	X	X	X	X	X
Sri Lanka	87.0	47.0	83.0	62.0	60.0	11.0	7.0	9.0	1.0	77.0	0.0	5.0
Syrian Arab Rep	92.0	78.0	100.0	100.0	80.4	11.6	0.0	0.0	100.0	0.0	0.0	0.0
Tajikistan, Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Thailand	67.0	85.0	84.0	86.0	X	X	X	X	X	X	X	X
Turkey	100.0	70.0	95.0	90.0	X	X	X	X	X	X	X	X
Turkmenistan, Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
United Arab Emirates	100.0	100.0	100.0	77.0	X	X	X	X	X	X	X	X
Uzbekistan, Rep	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Viet Nam	53.0	32.0	44.0	16.0	35.1	X	X	X	0.0	30.0	10.0	5.0
Yemen, Rep	X	X	X	X	X	X	X	X	X	X	X	X
OCEANIA												
Australia	100.0	100.0	100.0	100.0	X	X	X	X	X	X	X	X
Fiji	100.0	100.0	99.0	99.0	88.3	0.0	0.0	11.7	18.0	50.0	28.0	4.0
New Zealand	100.0	82.0	95.0	88.0	X	X	X	X	X	X	X	X
Papua New Guinea	84.0	17.0	95.0	12.0	X	X	X	X	X	X	X	X
Solomon Islands	82.0	58.0	73.0	2.0	X	X	X	X	X	X	X	X

Sources: World Health Organization and United Nations Children's Fund.

Notes: All of the former constituent republics of the Soviet Union were given the same 100 percent coverage of water and sanitation services as occurred in the former Soviet Union.
All successor countries to the former Yugoslavia were given the same 100 percent coverage as occurred in Yugoslavia.
Percent served by specific sources or services need not sum to total served. 0 = zero or less than half the unit of measure; X = not available or indeterminate.
For additional information, see Sources and Technical Notes.

Data Table A.3 Air Pollution in Selected Cities, 1989–94

		Suspended Particulate Matter		Smoke		Sulfur Dioxide		Lead	
		Site Years	Mean (micrograms)	Site Years	Mean (micrograms)	Site Years	Mean (micrograms)	Site Years	Mean (micrograms)
AFRICA									
Egypt	Cairo	X	X	12	55.2	12	41.7	X	X
EUROPE									
Finland	Helsinki	6	47.1	X	X	3	8.7	X	X
Germany	Frankfurt	5	36.8	X	X	5	23.2	X	X
Poland	Jarczew	X	X	9	48.2	8	18.9	X	X
	Wroclaw	X	X	6	67.4	6	125.4	X	X
Portugal	Lisbon	7	105.7	X	X	5	35.5	7	0.4
Spain	Madrid	X	X	9	41.9	9	16.3	X	X
Yugoslavia	Zagreb	8	72.1	X	X	12	39.1	3	0.4
NORTH AMERICA									
Canada	Hamilton	10	49.6	X	X	5	19.3	6	0.0
	Montreal	2	43.1	X	X	4	19.6	X	X
	Toronto	7	58.4	X	X	5	17.7	4	0.0
	Vancouver	6	34.9	X	X	4	17.1	4	0.0
United States	Los Angeles	6	49.0	X	X	X	X	6	0.1
	New York City	9	61.6	X	X	11	37.5	10	0.0
SOUTH AMERICA									
Brazil	Sao Paulo	2	36.4	10	43.0	10	36.6	X	X
Venezuela	Caracas	X	X	2	24.0	2	24.3	X	X
ASIA									
China	Beijing	8	362.7	X	X	8	88.6	X	X
	Guangzhou	8	169.7	X	X	8	45.5	X	X
	Shanghai	8	225.2	X	X	8	63.3	X	X
	Shenyang	8	356.9	X	X	8	131.5	X	X
	Xian	8	444.9	X	X	8	50.0	X	X
Hong Kong	Hong Kong	9	82.4	X	X	X	X	9	57.7
Iran, Islamic Rep	Tehran	10	263.2	11	112.1	11	139.5	1	0.0
Japan	Osaka	16	44.0	X	X	16	67.9	X	X
	Tokyo	12	49.9	X	X	12	70.0	X	X
Pakistan	Lahore	1	405.5	X	X	X	X	X	X
Thailand	Bangkok	2	171.4	X	X	2	1,224.1	2	7.5
OCEANIA									
New Zealand	Auckland	X	X	4	4.0	4	3.5	X	X
	Christchurch	3	20.5	X	X	4	13.8	X	X

Sources: World Health Organization and the United Nations Environment Programme.

Notes: These data are the most recent available, dating from 1989 to 1994. Large numbers of observation years are due to multiple sites in a city over several years.
X = not available. For additional information, see Sources and Technical Notes.

Data Table A.4 India: City Indicators, 1993

Indicator	Bombay	Delhi	Madras	Bangalore	Lucknow	Varanasi	Hubli-Dharwad	Mysore	Gulbarga	Bhiwandi	Tumkur
Population											
Population (million)	10.26	8.96	5.65	4.47	1.80	1.08	0.68	0.70	0.33	0.57	0.19
Growth Rate (%)	2.04	3.19	2.11	4.14	4.04	2.27	2.33	3.64	2.75	22.88	4.04
Average Household Size	4.80	4.97	4.70	4.82	5.71	7.50	5.61	5.24	6.09	5.21	5.09
Female Headed (%)	14.10	9.00	13.42	17.42	6.40	6.20	12.47	14.40	8.19	7.10	14.85
Below Poverty Line (%)	17.00	17.00	18.50	12.00	22.00	28.27	12.82	5.51	17.44	2.69	24.60
Household Income Distribution (Quintile Boundaries US$)											
I Quintile (poorest 20%)	374	290	347	385	291	268	284	373	258	X	287
II Quintile	620	679	531	670	482	426	698	746	660	X	433
III Quintile	939	1,082	772	1,144	762	634	845	1,176	1,052	X	641
IV Quintile	1,553	1,496	1,492	1,437	1,331	1,230	1,473	1,511	1,435	X	923
V Quintile (richest 20%)	2,497	3,292	2,781	2,487	2,181	2,084	2,009	2,372	1,951	X	1,761
Household Connections (%)											
Water	54.74	57.00	33.87	47.30	32.68	39.65	37.62	37.90	26.68	51.43	31.23
Sewage	51.43	39.60	37.17	35.34	30.00	73.35	37.37	90.00	13.92	14.69	0.00
Electricity	89.61	70.30	81.91	81.80	76.25	85.66	74.11	83.01	78.16	94.87	87.44
Telephone	18.00	30.80	18.31	16.34	11.71	21.91	7.42	15.28	10.19	10.22	8.41
Access to Potable Water	96.39	91.50	59.90	80.89	88.21	84.53	88.70	89.94	90.41	85.72	86.20
Miscellaneous											
Informal Employment (%)	68.10	66.67	60.60	32.21	48.00	48.96	30.73	31.12	27.35	77.94	63.17
Automobiles (per 1,000 pop.)	50.91	205.41	101.82	130.23	129.70	85.27	48.73	122.59	59.91	14.47	84.85
House Price to Income Ratio	3.53	7.00	7.88	10.79	4.76	5.11	3.70	7.48	4.04	0.27	6.36
Floor Area per Person (sq.m.)	3.49	6.88	6.22	9.48	5.51	4.53	6.22	11.83	6.11	2.41	7.38
Social Development											
Crime Rate -- Murder (per 1,000 pop.)	0.14	0.04	0.02	0.04	0.04	0.04	0.02	0.09	0.10	X	0.02
Crime Rate -- Theft (per 1,000 pop.)	1.68	1.64	0.68	1.73	1.38	0.23	0.95	0.79	1.19	X	0.46
Classroom Size -- Primary	48	39	30	32	20	43	47	21	44	60	29
Classroom Size -- Secondary	31	42	61	36	57	54	31	16	24	33	22
Hospital Beds (people per bed)	398.00	372.00	137.00	270.00	460.00	372.00	721.00	156.00	209.00	924.00	486.00
Infant Mortality (per 1,000 live births)	23.02	19.00	18.23	7.94	47.00	55.00	21.44	X	30.29	25.70	20.62
Annual per Capita Solid Waste (metric tons)	0.20	0.44	0.29	0.16	0.31	0.14	0.15	0.26	0.13	0.10	0.13
Solid Waste Collected (%)	90.00	76.92	90.00	96.00	73.66	87.50	89.08	60.00	74.24	40.00	50.00

Source: Society for Development Studies.

Note: X = not available. For additional information, see Sources and Technical Notes.

Sources and Technical Notes

Data Table A.1
Urban Indicators, 1975–2025

Sources: Urban population, percent urban, urban growth rates, and rural growth rates: United Nations (U.N.) Population Division, *Urban and Rural Areas, 1950–2025 (The 1994 Revision)*, on diskette (U.N., New York, 1995); number of cities over 750,000: United Nations (U.N.) *U.N. World Urbanization Prospects: The 1994 Revision* (Sales No. E.95.XIII.12, U.N., New York, 1995) Tables A1, A2, A6, A7, and A17; urban and rural dependency ratios: United Nations (U.N.) Population Division, *Urban and Rural Areas by Sex and Age: The 1992 Revision* (U.N., New York, 1993); and people in absolute poverty: United Nations Development Programme, *Human Development Report 1994* (Oxford University Press, New York, 1994).

As part of its biennial revision of population projections, the Population Division of the United Nations Department for Economic and Social Information and Policy Analysis prepares a number of data sets of global population estimates and projections. The most recent *Population Prospects* was revised in 1994. This table includes data from two data sets created as part of that 1994 revision and one data set from the 1992 revision. Population data in these data sets are estimates based on population censuses and surveys. See the Sources and Technical Notes for Data Table 8.1 for further information. All projections are for the medium-case scenario.

Urban population and *percent urban* refer to the midyear population of areas defined as urban in each of the countries of the world. These definitions vary slightly from country to country. Rural is defined as "not urban." *Urban growth rates* and *rural growth rates* include the effects of urban-rural migration.

Number of cities greater than 750,000 population is the number of cities in each country (as defined by each country) that had a population of 750,000 or more in 1990. There are only 369 such cities in the world.

Urban dependency ratio is defined here as the ratio of the urban population under 15 years and over 65 years of age compared with the urban population between the ages of 15 and 65. The *rural dependency ratio* is defined similarly. For the purposes of this indicator, this latter age group is defined as the economically active population upon which younger and older people depend. In reality, some people under the age of 15 and over the age of 65 are economically active everywhere, and some people between the ages of 15 and 65 are economically dependent on others.

People in absolute poverty is derived from a host of country studies and may not be strictly comparable.

Data Table A.2
Access to Safe Drinking Water and Sanitation, 1980–95

Sources: World Health Organization (WHO) and the United Nations Children's Fund (UNICEF), *WHO/UNICEF Joint Water Supply and Sanitation Monitoring Programme*, unpublished data (WHO, Geneva, 1995); WHO, *The International Drinking Water Supply and Sanitation Decade: End of Decade Review (as at December 1990)* (WHO, Geneva, August 1992); WHO, *Global Strategy for Health for All: Monitoring 1988–1989: Detailed Analysis of Global Indicators* (WHO, Geneva, May 1989); WHO, *The International Drinking Water Supply and Sanitation Decade: Review of Mid-Decade Progress (as at December 1985)* (WHO, Geneva, September 1987); WHO, *The International Drinking Water Supply and Sanitation Decade: Review of National Progress (as at December 1983)*; WHO, *The International Drinking Water Supply and Sanitation Decade: Review of National Baseline Data: December 1980* (WHO, Geneva, 1984); and WHO, unpublished data (WHO, Geneva, July 1991).

WHO collected data on drinking water and sanitation from national governments in 1980, 1983, 1985, 1988, and 1990 using questionnaires completed by public health officials, WHO experts, and resident representatives of the United Nations Development Programme, and most recently collected these data for 1994 in support of a monitoring system for WHO/UNICEF's Child Summit. These data are for a variety of developing countries and often include information on the percent of the urban population served by specific sources of water or specific sanitation systems. Urban and rural populations were defined by each national government and might not be strictly comparable.

WHO defines reasonable *access to safe drinking water* in an urban area as access to piped water or a public standpipe within 200 meters of a dwelling or housing unit. In rural areas, reasonable access implies that a family member need not spend a "disproportionate" part of the day fetching water. "Safe" drinking water includes treated surface water and untreated water from protected springs, boreholes, and sanitary wells. Definitions of safe water and appropriate access to sanitation and health services vary depending upon location and condition of local resources.

Urban areas with *access to sanitation services* are defined as urban populations served by connections to public sewers or household systems such as pit privies, pour-flush latrines, septic tanks, communal toilets, and other such facilities. Rural populations with access were defined as those with adequate disposal such as pit privies, pour-flush latrines, and so forth. Application of these definitions may vary, and comparisons can therefore be misleading.

Data Table A.3
Air Pollution in Selected Cities, 1989–94

Source: World Health Organization (WHO)/United Nations Environment Programme, and the Global Environment Monitoring System (GEMS)/AIR Monitoring Project, unpublished data (U.S. Environmental Protection Agency, Research Triangle Park, North Carolina, 1995).

These data should be used with care. Because different methods and procedures may have been used in each country, the best comparative data may be time trends within a country. GEMS/AIR sponsors a network of air pollution monitoring sites in more than 50 cities worldwide. These data are based on reports from those sites of observations made between 1989 and 1994 (exact years vary by city). Air quality in selected cities is given for the number of *site years* (number of sites multiplied by the number of years of operation in recent years) for *suspended particulate matter*, *smoke*, and *sulfur dioxide* (SO_2), and *lead*. These data are presented as the annual *mean* for each pollutant during the years of observation.

The health effects of *suspended particulate matter* (SPM) are in part dependent on the chemical makeup and biological activity of the particles. Heavy metal particles or hydrocarbons condensed onto dust particles can be especially toxic. There are two commonly used methods to measure SPM: high-volume gravimetric sampling and smoke shade methods. Gravimetric sampling determines the mass of particulates in a given volume of air. Smoke shade methods relate the reflectance of a stain left on filter paper that has had ambient air drawn through it to the concentration of particulates in the air. Smoke shade data cannot be used interchangeably with gravimetrically determined mass measurements because the smoke shade measurement is predominantly an indication of dark material in the air, which may not be proportional to the total

weight of suspended matter. High-volume data may be twice as large as concurrent smoke shade results. This table includes both gravimetrically determined *suspended particulate matter* measurements and smoke shade measurements. The WHO recommends exposures of less than 60 to 90 micrograms per cubic meter per day for total suspended particles and 40 to 60 micrograms per day for smoke. Many cities exceed the WHO guidelines on an average basis. SPM arises from numerous anthropogenic and natural sources. Among the anthropogenic sources are combustion, industrial and agricultural practices, and the formation of sulfates from SO_2 emissions.

WHO recommends that SO_2 exposures should not exceed an average of 40 to 60 micrograms per cubic meter over the course of a year. Many cities in Asia far exceed this level on an average basis. This is of particular concern for young children and people at risk of respiratory illness. Exposure, along with acute respiratory illness, could lead to chronic respiratory illness later in life. SO_2 is created by both natural and anthropogenic activities. Anthropogenic sources include fossil fuel combustion and industrial activities. High levels of SO_2 and SPM may cause respiratory problems among adults and children and may also result in illness in the lower respiratory tract, primarily in children. In the atmosphere, SO_2 oxidizes and, with moisture, becomes sulfuric acid. This acid precipitation, made more acidic by the simultaneous addition of nitric acid, can have effects far distant from its source and has been implicated in declines in forests in North America and Europe, negative effects on soils and crops, and the deterioration of architectural treasures.

Lead emissions are almost all anthropogenic. Alkyl lead, an antiknock additive to ordinary gasoline, accounts for 60 percent of global emissions and up to 90 percent in individual countries. Children are especially vulnerable to lead poisoning, which affects heme biosynthesis and the nervous system. The WHO guidelines call for annual average concentrations of less than 0.5 to 0.1 micrograms per cubic meter.

Data Table A.4
India: City Indicators, 1993

Source: Society for Development Studies (SDS) *India: City Indicators Programme* (Society for Development Studies, New Delhi, India, January 1996).

The India City Indicators Programme of the Society for Development Studies (SDS) is a collaborative effort between the government of India, various state governments, the United Nations Conference on Human Settlements (Habitat), and the United States Agency for International Development to develop inputs to India's national report for the upcoming United Nations Habitat II Conference. Assembling these indicators, and harmonizing them, across cities was no small accomplishment. The 11 cities studied were selected to represent the variety of urban processes found within India. In most cases, the data collection and statistical infrastructure necessary to measure these indicators are nonexistent. In these cases, SDS used other data to estimate these indicators.

Population data, including *growth rates*, are derived from the Census of India, and the estimates of state census offices, projected, where necessary, to estimate city populations. It is not always clear whether other indicators collected relate to the exact city boundaries used to estimate population.

Household data including the *average household size*, the percent of *female headed* households, and *floor area per person* are estimated from both Census of India data and the quinquiennial National Sample Survey also carried out by the government of India, and if necessary from other data (see *Source* for further information).

Household income distribution was estimated from survey data obtained from state parastatals for megacities and quick surveys for smaller cities. The number of households *below poverty line* was estimated from the number of applications for assistance received by cities. There is a strong possibility of undercounting.

Data on *household connections* were obtained from the state parastatal or local government providing water, sewer, telephone, and electrical connections. Illegal connections are not included but are believed significant.

Access to potable water includes other sources than household connections.

Estimates of the percent engaged in *informal employment* were made based upon projected total employment and growth in the formal sector as well as information from local, state, and national agencies. *Crime rate* data were obtained from local police departments and are only as complete as the reporting allows. Data on the number of *automobiles* were derived from studies at research centers as well as new estimates. Data on *hospital beds* are part of a good public health infrastructure database held by governmental authorities, but private hospitals are poorly represented. *Classroom size* is an essential parameter derived from local government information on enrollment. *Infant mortality* is derived from death registrations and is believed to be strongly understated. Estimates of *annual per capita solid waste* emissions and *solid waste collected* were obtained from local government authorities.