

Transportation: Selected City-Level Indicators

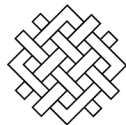
Source: Global Urban Indicators Database of the United Nations Human Settlements Programme (UN-HABITAT).

EarthTrends Data Tables:
Population,
Health, and
Human Well-being



COUNTRY	CITY	Urban Population		Transport Modes to Work				Travel Time to Work (minutes)		Unemployment (percent) 1998	Civil Society Involvement in Road/Highway Projects 1998		
		(000 people) 1998	Annual Population Growth (Percent) 1993-98	Private Motorized (Percent) 1998	Train/Tram (Percent) 1998	Bus/Minibus (Percent) 1998	Bicycle/Walking/Other (Percent) 1998	1993	1998				
Albania	Tirana	622	a	..	..	..	..	..	25	17.8	No	
Argentina	Buenos Aires	..	0.2	b	33.5	16.4	42.2	..	42	..	Yes		
	Comodoro Rivadavia	146	9.4	44.0	0.0	36.0	20.0	..	29	..	No		
	Cordoba	1,322	a	2.4	b	26.5	2.9	40.9	..	32	No		
	Rosario	988	6.1	..	..	..	..	..	22	..	Yes	
Armenia	Yerevan	1,250	a	0.6	b	2.0	11.5	72.5	14.0	52	30	7.4	No
Bangladesh	Chittagong	3,005	5.4	4.0	1.0	25.0	70.0	47	45	..	..	No
	Dhaka	10,000	3.9	4.6	0.0	9.2	86.2	..	45	..	4.0	No	
	Sylhet	400	6.0	1.3	0.0	10.0	88.7	..	50	..	..	No
	Tangail	152	3.0	..	..	..	..	15	30	..	..	No
Benin	Cotonou	1,151	..	90.0	0.0	0.0	10.0	..	..	..	3.9	Yes
	Parakou	159	5.4	80.0	0.0	0.0	20.0	..	45	..	..	Yes
	Porto-Novo	287	8.8	83.0	0.0	0.0	17.0	..	50	..	..	Yes
Bolivia	Santa Cruz de la Sierra	..	6.4	..	..	..	..	25	29	..	2.4	No
Bosnia and Herzegovina	Sarajevo	..	3.3	..	57.0	43.0	..	..	12	..	19.5	Yes
Brazil	Icapui	16	2.8	6.0	..	1.0	93.0	..	30	..	..	Yes
	Maranguape	40	3.4	5.0	0.0	30.0	..	..	20	..	..	Yes
	Porto Alegre	949	0.6	..	..	..	..	..	..	..	11.1	Yes
	Recife	1,346	0.3	28.6	1.8	44.2	25.4	40	35	..	13.6	Yes	
	Rio de Janeiro	5,552	1.3	..	..	..	..	51	..	..	5.0	Yes
	Santo Andre/ Sao Paulo	626	0.3	42.0	6.0	37.0	15.0	..	40	..	12.5	Yes	
Bulgaria	Bourgas	213	-0.1	6.0	0.1	61.0	33.0	..	32	..	4.7	Yes	
	Sofia	1,200	a	0.0	b	21.0	26.0	53.0	0.0	35	32	4.1	Yes
	Troyan	24	a	-4.0	b	18.0	0.0	44.0	38.0	..	22	11.6	Yes
	Veliko Tarnovo	650	-0.5	2.4	0.0	45.8	51.8	..	30	..	9.5	No	
Burkina Faso	Ouagadougou	710	4.4	63.4	0.0	2.2	34.4	..	..	..	16.2	Yes
Burundi	Bujumbura	309	3.4	12.4	0.0	48.2	39.4	22	25	..	24.4	No	
Cambodia	Phnom Penh	570	7.2	b	87.3	0.0	0.2	12.5	..	45	..	5.3	No
Cameroon	Douala	1,321	4.8	..	..	..	..	45	40	..	23.6	No
	Yaounde	1,293	5.2	30.0	0.0	42.3	27.7	50	45	..	30.5	Yes	
Canada	Hull	66	2.7	b	73.3	0.0	16.3	10.4	..	..	10.4	Yes
Central African Rep	Bangui	..	..	3.7	0.0	66.3	30.0	45	60	..	15.8	No
Chad	N'Djamena	64	..	17.0	0.0	35.0	48.0	64	..	..	..	Yes
Chile	Gran Concepcion	688	1.7	19.6	0.0	56.5	23.9	..	35	..	7.5	No	
	Santiago de Chile	5,737	a	..	14.1	4.0	55.8	26.2	36	38	No
	Valparaiso	294	1.8	42.0	19.0	36.0	3.0	..	..	..	17.4	Yes
Colombia	Armenia	276	..	31.0	0.0	41.9	27.2	..	60	..	15.0	Yes	
	Medellin	170	a	2.5	b	14.3	0.0	18.4	67.3	..	15	12.0	Yes
	Medellin	1,927	1.2	21.9	4.8	33.1	40.2	..	35	..	15.8	No	
Congo	Brazzaville	887	7.5	19.0	0.0	55.0	26.0	25	20	..	..	No
	Pointe - Noire	415	5.5	8.0	0.0	55.0	37.0	..	30	..	..	No
Congo, Dem Rep	Kinshasa	10,727	4.7	13.0	42.0	30.0	15.0	120	57	..	..	No
Côte d'Ivoire	Abidjan	2,687	4.5	..	..	..	..	90	45	..	14.8	Yes
	Yamoussoukro	155	0.4	..	..	..	..	..	20	..	14.8	Yes
Croatia	Zagreb	878	..	37.5	35.9	20.4	6.2	26	31	..	8.3	No	
Cuba	Camaguey	304	0.0	2.5	0.0	2.1	95.4	30	60	..	..	Yes
	Ciudad Habana	2,192	0.0	6.5	1.0	57.1	35.4	42	..	..	..	Yes
	Santa Clara	210	0.0	30.3	3.2	4.1	62.4	..	48	..	..	Yes
Czech Rep	Brno	0	a	-1.3	b	25.0	29.0	21.0	25.0	..	13	6.0	Yes
	Prague	1,193	a	..	33.0	0.0	54.5	12.5	57	22	..	2.3	Yes
Dominican Rep	Santiago de los Caballeros	691	a	..	..	..	..	..	30	..	..	No
Ecuador	Cuenca	..	..	..	..	..	..	..	25	..	6.7	Yes
	Guayaquil	2,166	4.0	10.7	0.0	89.3	0.0	45	45	..	11.3	Yes	
	Manta	126	a	..	..	..	..	..	30	..	..	No
	Puyo	23	7.5	..	..	..	..	..	15	..	..	No
	Quito	1,531	a	..	..	..	..	..	33	..	11.3	No
	Tena	..	..	..	..	..	..	..	5	..	..	No
Egypt	Ismailia	265	3.8	..	..	..	..	..	30	..	..	Yes
	Tanta	375	2.0	..	..	..	..	..	50	..	..	No
El Salvador	San Salvador	1,863	a	..	29.0	..	..	2.0	..	..	7.3	No
Estonia	Riik	..	..	..	..	..	..	..	..	..	11.7	No
	Tallin	..	..	..	..	..	..	27	35	..	10.3	Yes
Ethiopia	Addis Ababa	2,354	a	3.0	b	4.2	0.0	12.6	83.3	62	No
Gabon	Libreville	536	..	0.0	55.0	25.0	20.0	..	30	..	21.6	Yes	
	Port-Gentil	89	..	..	..	..	..	..	45	..	..	Yes
Gambia	Banjul	50	a	..	19.5	0.0	54.9	25.6	40	22	Yes
Ghana	Accra	1,500	a	..	34.7	4.0	50.0	11.3	45	21	Yes
	Kumasi	818	3.1	22.2	0.6	50.0	27.2	20	21	..	..	Yes
Guatemala	Quetzaltenango	333	a	..	..	..	..	..	15	..	46.0	No
Guinea	Conakry	..	6.1	22.0	0.0	25.5	52.5	55	45	..	19.0	Yes	
India	Bangalore	5,804	5.0	39.6	0.0	35.7	24.7	18	30	..	50.3	No	
	Chennai	6,388	2.4	42.0	11.0	25.0	22.0	22	23	..	..	Yes
	Delhi	..	..	24.6	0.4	62.0	13.0	44	..	..	..	No
	Mysore	812	3.0	39.1	0.0	0.1	60.8	20	20	..	..	Yes
Indonesia	Bandung	1,806	a	..	82.0	..	..	29	30	..	12.0	No
	Surabaya	2,373	a	0.8	b	80.0	0.0	17.8	2.2	23	35	..	No
Japan	Tokyo	7,421	..	..	..	..	..	..	45	..	4.7	Yes
Jordan	Amman	1,621	a	3.5	b	51.0	0.0	21.0	28.0	31	25	11.6	No
Kazakhstan	Astana	318	a	1.0	30.0	28.0	34.0	8.0	..	27	..	0.9	No
Kenya	Kisumu	405	4.6	21.1	0.0	43.5	35.5	24	24	..	23.5	No	
	Mombasa	..	..	2.1	0.0	47.0	50.9	27	20	..	..	No
	Nairobi	..	..	6.0	1.0	70.0	23.0	48	57	..	..	No
Korea, Rep	Pusan	3,843	a	-0.1	b	37.1	6.6	32.5	23.8	..	42	8.9	Yes
	Seoul	10,392	a	-1.0	b	20.1	32.3	38.8	8.8	..	60	7.8	Yes
Kuwait	Kuwait	388	a	..	68.0	0.0	21.0	11.0	..	10	..	0.7	No

Transportation: Selected City-Level Indicators



COUNTRY	CITY	Urban Population		Transport Modes to Work				Travel Time to Work		Unemployment (percent) 1998	Civil Society Involvement in Road/Highway Projects 1998		
		(000 people) 1998	Annual Population Growth (Percent) 1993-98	Private Motorized (Percent) 1998	Train/ Tram (Percent) 1998	Bus/ Minibus (Percent) 1998	Bicycle/ Walking/ Other (Percent) 1998	1993	1998				
Kyrgyzstan	Bishkek	30	1.3	5.0	35.4	59.6	0.0	22	35	5.9	Yes		
Lao People's Dem Rep	Vientiane	354	4.0	41.8	0.0	2.1	56.1	22	27	5.4	Yes		
Lebanon	Sin El Fil	..	..	25.0	0.0	50.0	25.0	..	10	..	No
Lesotho	Maseru	..	7.0	3.0	0.0	47.0	50.0	..	15	..	No		
Liberia	Monrovia	869	4.5	10.0	0.0	80.0	10.0	60	60	..	No		
Libyan Arab Jamahiriya	Tripoli	1,773	a	..	81.0	0.0	18.0	1.0	..	20	7.6	Yes	
Lithuania	Vilnius	754	..	22.3	29.1	23.2	25.5	25	37	6.4	Yes		
Madagascar	Antananarivo	..	2.9	b	7.0	0.0	60.0	33.0	..	60	29.2	No	
Malawi	Lilongwe	..	..	6.0	0.0	27.0	67.0	31	5	..	No
Malaysia	Penang	1,251	1.8	42.0	0.0	55.0	3.0	..	40	3.2	Yes		
Mali	Bamako	1,016	a	..	24.9	0.0	12.2	62.9	40	30	20.0	Yes	
Mauritania	Nouakchott	..	..	16.5	0.0	45.0	38.5	50	50	28.5	No
Mexico	Ciudad Juarez	1,018	4.3	..	51.3	0.0	23.7	25.0	..	23	1.8	Yes	
Moldova	Chisinau	..	..	15.0	0.0	80.0	5.0	25	23	..	Yes
Monqolia	Ulaanbaatar	652	2.1	10.0	21.0	59.0	10.0	29	30	1.9	Yes		
Morocco	Casablanca	3,170	..	..	..	..	..	..	30	..	Yes
	Rabat	646	3.6	40.0	0.0	40.0	20.0	..	20	..	Yes		
Mozambique	Maputo	3,000	2.7	b	6.5	0.0	80.0	13.5	..	60	..	No	
Myanmar	Yangon	3,692	a	3.3	b	16.7	3.7	65.0	14.7	..	45	4.3	Yes
Namibia	Windhoek	182	20	20	22.0	Yes	
Nepal	Butwal	95	10.0	10.0	0.0	15.0	75.0	..	15	60.7	Yes		
	Pokhara	160	7.8	11.0	0.0	14.0	75.0	..	20	23.0	Yes		
Niger	Maradi	259	8.6	..	..	..	..	..	15	..	Yes
	Niamey	603	4.7	27	30	..	Yes	
Nigeria	Ibadan	..	3.0	45.0	0.5	45.0	9.5	40	45	..	Yes		
	Lagos	..	3.0	51.0	2.5	45.5	..	85	60	..	Yes		
Oman	Muscat	887	a	..	..	..	..	..	20	..	Yes
Pakistan	Karachi	5,329	5.1	16.5	0.0	41.0	39.5	..	..	10.5	No
Panama	Colon	42	2.6	..	..	..	..	..	15	..	No
Paraguay	Asuncion	..	0.8	49.8	..	..	..	60	25	11.4	Yes
Peru	Cajamarca	272	11.5	22.0	..	20.0	58.0	10	20	40.0	Yes		
	Huanuco	747	a	2.6	b	17.5	..	..	20	..	No
	Huaras	54	a	2.2	b	..	..	..	15	..	No
	Iquitos	309	7.5	35.0	0.0	25.0	40.0	..	10	11.9	Yes		
	Lima	..	2.3	b	16.9	0.0	82.2	0.9	35	..	15.4	Yes	
	Tacna	7	..	37.5	..	66.0	1.0	..	25	35.0	No		
	Tumbes	..	6.0	25.0	..	..	5.0	..	20	62.0	No
Philippines	Cebu	694	1.3	..	..	..	..	..	35	11.0	Yes
Poland	Bydgoszcz	387	0.1	42.5	10.5	24.0	..	..	18	7.0	Yes
	Gdansk	459	a	..	43.0	32.9	23.4	0.7	..	20	1.5	Yes	
	Katowice	3,459	-3.8	46.2	9.4	19.9	24.6	..	36	2.4	Yes		
	Poznan	579	-0.6	33.0	30.0	21.0	16.0	..	25	0.9	No		
Russian Federation	Astrakhan	485	-0.4	16.0	31.0	35.0	18.0	..	35	15.9	Yes		
	Kostroma	289	0.5	5.0	19.5	48.0	27.5	21	20	11.2	No		
	Moscow	8,538	-0.5	15.0	63.7	21.0	0.3	62	62	4.8	Yes		
	Nizhny Novgorod	1,327	-0.6	17.0	37.3	41.7	4.0	35	35	9.1	Yes		
	Novomoscowsk	140	-0.6	5.0	22.5	38.9	33.6	..	25	11.6	Yes		
	Omsk	1,158	-0.1	9.5	16.5	69.0	5.0	..	43	15.5	Yes		
	Pushkin	92	-0.3	6.0	0.0	60.2	33.8	..	15	11.3	Yes		
	Surgut	278	1.2	1.5	0.0	81.0	17.5	..	57	14.4	Yes		
	Veliky Novgorod	231	-0.2	9.5	0.0	75.0	15.5	..	30	15.4	Yes		
Rwanda	Kigali	358	a	6.0	b	12.0	0.0	32.0	56.0	..	45	..	Yes
Senegal	Bignona	30	3.7	1.7	0.0	0.0	98.3	..	10	60.7	No		
	Dakar	2,165	2.3	8.1	1.3	77.2	13.4	45	30	..	Yes		
	Thies	248	3.2	18.2	0.0	59.3	22.6	..	12	60.8	No		
Serbia and Montenegro	Belgrade	1,626	-0.1	12.5	18.8	53.0	..	35	40	14.7	No		
Singapore	Singapore	3,164	a	1.9	b	25.1	14.5	38.7	21.7	..	30	..	No
Slovenia	Ljubljana	327	0.5	43.0	0.1	20.0	36.9	22	30	5.1	Yes		
South Africa	Port Elizabeth	1,030	a	2.3	b	52.4	1.8	45.8	0.0	..	35	48.5	No
Spain	Madrid	2,867	-1.0	60.0	0.0	16.0	24.0	..	32	16.3	Yes		
Sri Lanka	Colombo	4,600	a	..	23.7	8.1	65.0	3.2	35	25	..	Yes	
Sweden	Stockholm	736	a	1.2	b	35.1	34.5	13.8	16.6	35	28	4.8	Yes
	Umea	104	a	1.3	b	..	..	..	16	4.8	Yes
Syrian Arab Rep	Damascus	2,335	a	1.8	b	15.0	0.0	32.6	52.4	..	40	..	Yes
Thailand	Bangkok	8,769	2.7	b	58.7	1.0	27.0	13.3	..	60	4.7	Yes	
	Chiang Mai	172	0.2	94.1	0.0	5.0	0.9	..	30	4.4	No		
Togo	Lome	917	7.6	45.0	0.0	40.0	15.0	30	30	..	No		
	Sokode	89	3.0	60.0	0.0	10.0	30.0	..	15	17.0	No		
Trinidad and Tobago	Port of Spain	..	..	56.2	0.0	43.8	0.0	..	..	14.2	No
Turkey	Ankara	3,236	1.9	20.0	6.3	..	15.9	..	32	7.3	No		
Uganda	Entebbe	65	a	8.6	b	35.0	0.0	65.0	0.0	..	20	21.7	Yes
Uganda	Jinja	139	2.4	18.0	0.0	49.0	33.0	20	12	31.0	Yes		
United Kingdom	Birmingham	2,628	-0.2	73.9	1.4	9.1	15.6	..	20	..	No		
	Cardiff	321	a	..	81.0	0.3	5.7	13.0	..	20	..	No	
	Edinburgh	450	a	1.9	b	69.9	2.4	13.0	14.7	..	20	..	No
	London	7,187	a	3.7	b	24	..	No	
	Manchester	2,577	-0.1	71.8	1.9	8.1	18.0	..	19	..	No		



COUNTRY	CITY	Urban Population		Transport Modes to Work				Travel Time to Work (minutes)		Unemployment (percent)	Civil Society Involvement in Road/Highway Projects		
		(000 people)	Annual Population Growth (Percent)	Private Motorized (Percent)	Train/Tram (Percent)	Bus/Minibus (Percent)	Bicycle/Walking/Other (Percent)	1993	1998				
		1998	1993-98	1998	1998	1998	1998	1998	1998	1998			
Uruguay	Montevideo	1,608	0.8	26.9	0.0	59.6	13.5	..	45	10.2	Yes		
United States	Atlanta	3,774	1.6	..	..	..	..	24	26	3.3	Yes
	Des Moines	437	5.8	..	..	..	..	16	18	2.1	Yes
	Hartford	1,143	-0.6	..	..	..	..	19	21	3.5	Yes
	New York	8,679	1.2	..	..	..	..	37	35	7.3	Yes
	Providence	1,122	-0.7	..	..	..	..	..	19	4.9	Yes
	Seattle	2,312	7.4	..	..	..	..	22	24	3.1	Yes
	Washington	4,661	6.0	..	..	..	..	..	30	3.2	Yes
Viet Nam	Hanoi	2,530	2.7	64.4	0.0	2.0	33.6	..	30	6.0	Yes		
	Ho Chi Minh	3,696	1.7	74.0	0.0	2.0	24.0	..	25	8.7	No		
Yemen	Sana'a	1,200	a	8.6	b	20.0	0.0	78.0	2.0	15	20	..	No
Zimbabwe	Bulawayo	953	..	22.8	0.0	74.9	2.3	56	15	55.3	Yes		
	Chegutu	..	..	19.0	0.0	20.0	61.0	..	22	25.0	No
	Gweru	181	8.2	..	..	..	..	..	15	..	Yes
	Harare	1,634	a	4.2	b	18.0	0.0	32.0	50.0	56	45	..	Yes
	Mutare	149	a	12.0	0.0	70.0	18.0	..	20	..	Yes

a. Metropolitan Area population figures. For city level data, the standard area of reference is the urban agglomeration. When data for the Urban Agglomeration is not available, data for the Metropolitan Area is used. See technical notes for more details. b. Metropolitan Area population growth figures. See technical notes for more details.

Technical Notes

Adapted from "Urban Indicators Tool Kit Guide", available on-line at http://www.unhabitat.org/programmes/quo/quo_guide.asp.

Data are provided by the Global Urban Indicators database of the United Nations Human Settlements Programme (UN-HABITAT). UN-HABITAT is mandated by the UN General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate shelter for all. The Global Urban Indicators database was developed to measure progress in the implementation of the Habitat Agenda and on Resolutions 15/6 and 17/1 of the United Nations Commission on Human Settlements, also known as UNCHS (Habitat).

VARIABLE DEFINITIONS:

Urban Population is the total number of people living within city limits. For city level data, the standard area of reference is the urban agglomeration. When data for the Urban Agglomeration is not available, data for the Metropolitan Area is used. These instances should be indicated by an accompanying footnote.

Urban Agglomeration is the built-up or densely populated area containing the city proper; suburbs, and continuously settled commuter areas. It may be smaller or larger than the metropolitan area.

Metropolitan Area is the set of formal local government areas which are normally taken to comprise the urban area as a whole and its primary commuter areas.

Annual Population Growth is the average percent growth rate each year of population in the urban agglomeration (or metropolitan area, where indicated by a footnote).

Transport Modes to Work is the percentage of work trips undertaken by **private car; train, tram; bus or minibus; motorcycle, bicycle, foot, or other modes**. When several modes of transport are used for a given trip, the following hierarchy is employed to determine the principal mode: (1) train; (2) tram or ferry; (3) bus or minibus; (4) car; (5) taxi or motorcycle; (6) bicycle or other non-motorized modes.

Effective and environmentally friendly transportation systems are revealed in part through measures of different travel modes used for work trips. Ideally, transportation systems should support an adequate and balanced mix of modes for the several uses required of it. While, at present, private motorized transport has become the major mode in cities, public transport and non-motorized modes of transport offer an affordable, efficient, and energy saving alternative.

Travel Time to Work is the average time in minutes for a one-way work trip. This value represents an average over all modes of transport.

Travel time is one of the key performance measures of transportation systems. Long transport times to work are associated with severe traffic congestion, uncontrolled management, accidents, and the general dissatisfaction of the commuting population.

Unemployment is the average proportion of unemployed men and women during the year, as a fraction of the formal workforce. Unemployed persons are defined as those individuals without work, who are currently available for work and have sought it in a recent past period.

Lack of access to transport is experienced disproportionately by people with low socio-economic status. Cities whose transport systems are designed to meet the needs of private vehicles owners tend to place the poor at a disadvantage. Those unable to afford cars often suffer from limited access to jobs, education, hospitals, and other facilities.

Civil Society Involvement in Road/Highway Projects denotes whether a city involves civil society in a formal participatory process prior to the proposal of new major roads and highways. Citizen participation in government decision-making processes plays an important role in democracy and self-determination. Reliable participatory mechanisms enable governments to better monitor citizen needs, maintain a watchful eye over operations, and represent the wishes of the citizenry.

METHODOLOGY:

The data collection process for these indicators operated under various modes:

- Voluntary participation of Local Urban Observatories and other city-based institutions, upon invitation of UNCHS (Habitat)
- Consultants hired by UNCHS (Habitat), usually recommended by the local government
- Regional consulting organizations funded by UNCHS (Habitat) to locate cities, hire local consultants and assemble the data.

Local consultants or focal points collect and compile the data, using published data where available. In addition to documenting results and providing supplementary reports, consultants are also responsible for making corrections to their data when necessary. In these cases, they are required to fully document their methods and explain divergences with other sources.

No new surveys were initiated to collect this information; data are often obtained from existing household and transport surveys. For areas which require more detailed surveys or lack published data, an estimated or “educated guess” from a group of expert observers in the field is sought. Whether UNCHS or a consultant’s own methodology is used, both the sources and methodology used to arrive at the final estimates are fully documented.

FREQUENCY OF UPDATE BY DATA PROVIDERS:

UNHabitat: The Global Urban Indicators Database contains city-level data for various urban areas worldwide for the years 1993 and 1998. The United Nations Commission on Human Settlements, also known as UNCHS (Habitat), developed the database’s indicator system to measure progress in the implementation of the Habitat Agenda, as well as to measure performances and trends in selected key areas such as social and economic development, governance, and environmental management.

DATA RELIABILITY AND CAUTIONARY NOTES:

Data compiled in the Global Urban Indicators Database are considered the best and latest available, and have been corrected when necessary. However, some results need to be taken with caution. As a general rule, approximate results are offered over no result. UNCHS (Habitat) chooses to include these estimates, because data which might be insufficiently accurate for a detailed study of a single indicator, or for examining short-term variations in a single indicator, may still be accurate enough for sector-wide evaluations.

As a result, data may not represent official views of governments when collected by individual consultants. They may also conflict with other expert opinions available in the issues addressed.

SOURCES:

United Nations Human Settlements Program, 2001. *The Global Urban Indicators Database*. New York: United Nations. Available online at: http://www.unhabitat.org/programmes/guo/guo_indicators.asp.