

**WRI ENVIRONMENTAL HEALTH INDICATOR**  
**DEVELOPING COUNTRIES: POTENTIAL EXPOSURE TO POLLUTED INDOOR AIR**  
Links: Methods; Data Sources; Data Notes

	Residential Use of Coal and Biomass Fuel (kilograms of coal equivalent)	Average Size of Households (1994) (a,b)	Total Population 1994 (000)	Number of Households (000)	Residential Use of Coal and Biomass Fuel per Household (kilograms of coal equivalent)	Rank of Potential Exposure to Biomass Use
<b>Range of Rank</b>						<b>1-96</b>
<b>AFRICA</b>						
Algeria	682,000,000	7.2	27,450	3,813	179	15
Angola	1,926,540,000	5.2	10,466	2,013	957	45
Benin	1,803,868,000	5.4	5,259	974	1,852	85
Botswana	X	5.4	1,416	262	X	X
Burkina Faso	3,113,176,000	5.2	10,186	1,959	1,589	68
Burundi	1,626,240,000	4.5	5,930	1,318	1,234	59
Cameroon	4,001,932,000	5.2	12,833	2,468	1,622	74
Central African Rep	1,091,200,000	5.2	3,203	616	1,772	81
Chad	1,268,344,000	5.2	6,161	1,185	1,071	53
Congo, Dem Rep	14,850,642,000	5.2	43,930	8,448	1,758	80
Congo, Rep	759,220,000	5.3	2,518	475	1,598	70
Côte d'Ivoire	3,732,124,000	5.2	13,329	2,563	1,456	66
Egypt	843,656,000	4.9	60,946	12,438	68	9
Equatorial Guinea	136,400,000	5.2	389	75	1,823	84
Eritrea	X	X	3,084	X	X	X
Ethiopia	15,084,300,000	5.2	54,635	10,507	1,436	65
Gabon	938,432,000	5.2	1,046	201	4,665	96
Gambia, The	375,100,000	5.2	1,077	207	1,811	82
Ghana	8,390,130,000	5.2	16,856	3,242	2,588	93
Guinea	1,423,488,000	5.2	7,092	1,364	1,044	51
Guinea-Bissau	136,400,000	5.2	1,047	201	677	36
Kenya	12,812,922,000	5.1	26,459	5,188	2,470	91
Lesotho	X	X	1,977	X	X	X
Liberia	1,738,308,000	5.2	2,119	408	4,266	95
Libya	170,500,000	5.2	5,225	1,005	170	14
Madagascar	3,406,392,000	4.5	14,406	3,201	1,064	52
Malawi	3,226,520,000	5.2	9,587	1,844	1,750	79
Mali	1,990,252,000	5.1	10,462	2,051	970	46
Mauritania	X	5.5	2,217	403	X	X
Mauritius	X	4.8	1,104	230	X	X
Morocco	477,400,000	5.9	26,025	4,411	108	13
Mozambique	4,995,540,000	4.3	16,636	3,869	1,291	61
Namibia	X		1,499	X	X	X
Niger	1,773,200,000	5.2	8,846	1,701	1,042	50
Nigeria	33,234,344,000	5.2	108,467	20,859	1,593	69
Rwanda	1,805,188,000	4.6	5,296	1,151	1,568	67
Senegal	1,589,060,000	5.2	8,102	1,558	1,020	48
Sierra Leone	1,053,668,000	5.2	4,127	794	1,328	63
Somalia	2,842,752,000	5.2	9,232	1,775	1,601	72
South Africa	12,515,400,000	5.2	40,552	7,798	1,605	73
Sudan	7,472,168,000	5.6	26,148	4,669	1,600	71
Swaziland	X	X	833	X	X	X
Tanzania	11,209,264,000	5.2	29,172	5,610	1,998	88
Togo	370,876,000	5.2	3,970	763	486	29
Tunisia	1,091,200,000	5.5	8,820	1,604	680	37
Uganda	4,833,268,000	5.2	19,080	3,669	1,317	62
Zambia	4,474,404,000	5.0	7,897	1,579	2,833	94
Zimbabwe	2,355,538,000	5.2	10,936	2,103	1,120	55

WRI ENVIRONMENTAL HEALTH INDICATOR  
DEVELOPING COUNTRIES POTENTIAL EXPOSURE TO POLLUTED INDOOR AIR (continued)

	Residential Use of Coal and Biomass Fuel (kilograms of coal equivalent)	Average Size of Households (1994) (a,b)	Total Population (000)	Number of Households (000)	Residential Use of Coal and Biomass Fuel per Household (kilograms of coal equivalent)	Rank of Potential Exposure to Biomass Use
<b>CENTRAL AMERICA</b>						
Belize	43,736,000	5.3	208	39	1,114	54
Costa Rica	276,930,000	4.7	3,347	712	389	24
Cuba	3,060,000	4.1	10,908	2,660	1	1
Dominican Rep	844,560,000	4.3	7,684	1,787	473	27
El Salvador	2,150,456,000	<b>4.8</b>	5,528	1,152	1,867	86
Guatemala	3,892,320,000	5.2	10,322	1,985	1,961	87
Haiti	2,033,064,000	<b>4.8</b>	6,991	1,456	1,396	64
Honduras	1,858,950,000	<b>4.8</b>	5,493	1,144	1,624	75
Jamaica	149,072,000	<b>4.8</b>	2,445	509	293	17
Mexico	8,996,400,000	5.5	89,564	16,284	552	33
Nicaragua	1,412,190,000	<b>4.8</b>	4,007	835	1,692	78
Panama	529,380,000	4.6	2,585	562	942	42
Trinidad and Tobago	X	4.5	1,277	284	X	X
<b>SOUTH AMERICA</b>						
Argentina	445,230,000	3.9	34,318	8,799	51	7
Bolivia	599,760,000	4.3	7,237	1,683	356	23
Brazil	10,982,340,000	4.4	156,911	35,662	308	19
Chile	3,532,770,000	4.5	13,994	3,110	1,136	56
Colombia	5,892,030,000	5.2	35,178	6,765	871	41
Ecuador	1,366,290,000	5.1	11,220	2,200	621	35
Guyana	10,868,000	5.1	821	161	68	9
Paraguay	1,513,170,000	5.2	4,703	904	1,673	77
Peru	4,459,950,000	4.9	23,131	4,721	945	44
Suriname	28,028,000	<b>4.7</b>	422	90	312	21
Uruguay	462,060,000	3.3	3,167	960	481	28
Venezuela	366,432,000	5.3	21,378	4,034	91	12
<b>ASIA</b>						
Afghanistan, Islamic State	1,875,500,000	5.9	18,470	3,131	599	34
Armenia, Rep	6,120,000	<b>5.3</b>	3,622	683	9	2
Azerbaijan	X	X	7,464	X	X	X
Bangladesh	10,654,600,000	5.7	116,493	20,437	521	31
Bhutan	409,200,000	<b>5.3</b>	1,738	328	1,248	60
Cambodia	2,182,400,000	<b>5.3</b>	9,767	1,843	1,184	57
China	596,451,084,000 c	4.4	1,208,278	274,609	2,172	90
Georgia	34,100,000	<b>5.3</b>	5,458	1,030	33	5
India	90,039,674,000	5.5	913,495	166,090	542	32
Indonesia	40,583,250,000	4.9	194,509	39,696	1,022	49
Iran, Islamic Rep	859,100,000	4.9	66,671	13,606	63	8
Iraq	34,100,000	<b>5.3</b>	19,650	3,708	9	2
Israel	X	3.5	5,362	1,532	X	X
Jordan	X	6.6	5,143	779	X	X
Kazakhstan, Rep	102,300,000	<b>5.3</b>	16,824	3,174	32	4
Korea, Dem People's Rep	1,432,200,000	<b>5.3</b>	21,734	4,101	349	22
Korea, Rep	5,327,460,000	4.1	44,501	10,854	491	30
Kuwait	X	6.5	1,754	270	X	X
Kyrgyz Rep	X	X	4,455	X	X	X
Lao People's Dem Rep	1,466,300,000	<b>5.3</b>	4,736	894	1,641	76
Lebanon	170,500,000	<b>5.3</b>	2,915	550	310	20
Malaysia	3,144,724,000	5.1	19,695	3,862	814	39
Mongolia	136,400,000	<b>5.3</b>	2,414	455	299	18
Myanmar	7,097,420,000	5.2	44,323	8,524	833	40
Nepal	9,256,500,000	5.8	20,898	3,603	2,569	92
Oman	X	X	2,116	X	X	X
Pakistan	8,522,800,000	6.7	132,701	19,806	430	25
Philippines	11,537,730,000	5.6	66,391	11,856	973	47
Saudi Arabia	X	X	17,765	X	X	X
Singapore	X	4.7	3,268	695	X	X
Sri Lanka	3,218,952,000	5.2	17,757	3,415	943	43
Syrian Arab Rep	X	6.3	13,840	2,197	X	X
Tajikistan, Rep	X	X	5,726	X	X	X
Thailand	4,784,310,000	5.2	57,782	11,112	431	26
Turkey	14,183,100,000	5.2	59,903	11,520	1,231	58
Turkmenistan, Rep	X	X	3,995	X	X	X
United Arab Emirates	X	5.2	2,157	415	X	X
Uzbekistan, Rep	911,880,000	<b>5.3</b>	22,317	4,211	217	16
Vietnam	10,460,990,000	4.8	72,384	15,080	694	38
Yemen	102,300,000	6.8	14,329	2,107	49	6
<b>OCEANIA</b>						
Fiji	10,120,000	6.0	771	129	79	11
Papua New Guinea	2,015,904,000	4.5	4,204	934	2,158	89
Solomon Islands	102,300,000	6.5	366	56	1,817	83

Notes: a. The concept of "household" is based on the arrangements made by persons, individually or in groups, for providing themselves with food or other essentials for living; households may comprise one person or many people. b. Household sizes shown in bold are averages based on the entire region. c. Coal consumption for household use accounted for 15.8% of China's 1991 total coal consumption of 2,186.2 million tons (or 345.420 million tons of oil equivalent); Source: Energy Demand Forecast and Environmental Impact in China, March 1994, Environment Information Center, Tokyo.