



PART

WORLD
RESOURCES
2000-2001

II

DATA TABLES

BIODIVERSITY AND
PROTECTED AREAS

FORESTS AND
GRASSLANDS

COASTAL, MARINE, AND
INLAND WATERS

AGRICULTURE
AND FOOD

FRESHWATER

ATMOSPHERE
AND CLIMATE

ENERGY AND
RESOURCE USE

POPULATION AND
HUMAN DEVELOPMENT

BASIC ECONOMIC
INDICATORS

SMALL NATIONS AND
ISLANDS

Information about the World Resources 2000–2001

Data Tables

Country groupings are based on lists developed by FAO (developed and developing countries), UNICEF (industrialized, developing, and least developed countries, and other regions), UNPD (populations in developed and developing countries and other regions), World Bank (high-, medium-, and low-income countries), and WRI (regions). (See pp. 309–313.)

Several general notes apply to all of the data tables in the report (except where noted otherwise):

- “X” in a data column signifies that data are not available or are not relevant (for example, country status has changed as with the former Czechoslovakia and the Czech Republic).
- Negative values are shown in parentheses.
- Zero is either 0 or less than one-half the unit of measure; (0) indicates a value less than 0 and greater than negative one-half.
- Except where identified with a footnote, regional totals are calculated using regions designated by the World Resources Institute (WRI). These regions are as listed at the back of this report in the “WRI Regions” table on page 309.
- Except where identified with a footnote, world totals are presented using totals as calculated by the original data source (which may include countries not listed in this database); for original source see Sources and Technical Notes.
- Except where identified with a footnote, developed and developing country totals are calculated using designations from the Food and Agriculture Organization of the United Nations (FAO). These designations are listed at the back of this report in the “FAO Regions” table.
- Additional technical notes to the Data Tables begin on page 315.
- Updates may be added to some tables such as the Freshwater Chapter. Please check our website for revisions.

Watch the website <http://www.wri.org>

World Resources data tables and analysis of global environmental trends are moving to a new searchable format on line. Beginning in January 2001, these critical components of *World Resources* will become part of a new portal for environmental information on the World Resources Institute's website. Data and trends will be continuously updated and expanded as new statistics become available.

As in previous editions, the information contained in the data tables in this volume is also downloadable and printable in .pdf format at the website and is available on CD-Rom by order from <http://www.wristore.com>.

Part II: Data Tables

TABLE OF CONTENTS

Biodiversity and Protected Areas

Data Table BI.1 National and International Protection of Natural Areas	244
Data Table BI.2 Globally Threatened Species: Mammals, Birds, and Reptiles	246
Data Table BI.3 Globally Threatened Species: Amphibians, Freshwater Fish, and Plants	248
Data Table BI.4 Trade in Wildlife and Wildlife Products Reported by CITES	250

Forests and Grasslands

Data Table FG.1 Forest Cover and Change and Certified Forest Area	252
Data Table FG.2 Forest Ecosystems and Threatened Tree Species	254
Data Table FG.3 Wood Production and Trade	256
Data Table FG.4 Livestock Populations, Grain Consumed as Feed, and Meat Production	258
Data Table FG.5 PAGE Ecosystems: Area, Population, Carbon Stocks, and Protected Areas	260

Coastal, Marine, and Inland Waters

Data Table CMI.1 Marine and Freshwater Catches and Aquaculture Production	262
Data Table CMI.2 Trade in Fish and Fishery Products, Fish Consumption, and Fishers and Fleet Information	264
Data Table CMI.3 Coastal Statistics, Coastal Biodiversity, and Trade in Coral	266
Data Table CMI.4 Marine Fisheries, Yield, and State of Exploitation	268

Agriculture and Food

Data Table AF.1 Food and Agricultural Production	270
Data Table AF.2 Agricultural Land and Inputs	272
Data Table AF.3 Food Security	274

Freshwater

Data Table FW.1 Freshwater Resources and Withdrawals	276
Data Table FW.2 Groundwater and Desalinization	278
Data Table FW.3 Major Watersheds of the World	280

Atmosphere and Climate

Data Table AC.1 Emissions from Fossil Fuel Burning and Cement Manufacturing	282
Data Table AC.2 Common Anthropogenic Pollutants	284
Data Table AC.3 Atmospheric Concentration of Greenhouse and Ozone-Depleting Gases	285

Energy and Resource Use

Data Table ERC.1 Energy Production by Source	286
Data Table ERC.2 Energy Consumption by Source	288
Data Table ERC.3 Energy Consumption by Economic Sector	290
Data Table ERC.4 Energy from Renewable Sources	292
Data Table ERC.5 Resource Consumption	294

Population and Human Development

Data Table HD.1 Demographic Indicators	296
Data Table HD.2 Trends in Mortality, Life Expectancy, and AIDS	298
Data Table HD.3 Safe Water, Sanitation, School Enrollment, and Literacy	300

Basic Economic Indicators

Data Table EI.1 Gross Domestic Product and Trade Values	302
Data Table EI.2 International Financial Flows and Investment	304
Data Table EI.3 Distribution of Income and Poverty	306

Small Nations and Islands

Data Table SCI.1 Small Nations and Islands	308
--	-----

	National Protection Systems									Protected Areas that Are Part of Global Agreements					
	Protected Areas (IUCN Management Categories I-V)					Number of				Biosphere		World		Wetlands of	
	Number	Area (000 ha)	Percent of Land Area	No. of Areas at least:		Marine Protected Areas (a) (IUCN Categories I-VI)			Reserves (b)		Heritage Sites (c)		International Importance (d)		
				100,000 ha in Size	1 million ha in Size	Total	Littoral	Marine	Number	Area (000 ha)	Number	Area (000 ha)	Number	Area (000 ha)	
WORLD (e)	28,442	851,511	6.4	1,250	154	3,636	2,825	1,685	368	263,897	149	142,209	1,019	73,012	
ASIA (EXCL. MIDDLE EAST)	2,421	148,692	6.0	210	20	831	545	419	45	13,350	25	5,154	59	3,121	
Armenia	5	213	7.6	1	0	X	X	X	0	0	0	0	2	492	
Azerbaijan	34	478	5.5	0	0	3	3	0	0	0	0	0	N/A	N/A	
Bangladesh	10	98	0.7	0	0	6	6	0	0	0	1	595	1	596	
Bhutan	9	998	21.2	3	0	X	X	X	0	0	N/A	N/A	N/A	N/A	
Cambodia	20	2,863	15.8	10	0	X	X	X	1	1,481	0	0	3	55	
China	407	59,840	6.2	40	10	56	41	28	16	2,645	7	352	7	588	
Georgia	18	195	2.8	0	0	1	1	0	0	0	0	0	2	34	
India	493	14,312	4.4	22	0	115	113	12	0	0	5	292	6	193	
Indonesia	331	19,253	10.1	35	5	102	93	40	6	1,329	3	2,845	2	243	
Japan	96	2,561	6.8	8	0	187	52	140	4	117	2	28	11	84	
Kazakhstan	73	7,337	2.7	18	1	1	1	0	0	0	0	0	N/A	N/A	
Korea, Dem People's Rep	31	316	2.6	1	0	X	X	X	1	132	0	0	N/A	N/A	
Korea, Rep	30	684	6.9	1	0	7	5	6	1	39	0	0	2	1	
Kyrgyzstan	78	694	3.5	0	0	X	X	X	1	24	0	0	N/A	N/A	
Lao People's Dem Rep	0	0	0.0	0	0	X	X	X	0	0	0	0	N/A	N/A	
Malaysia	143	1,507	4.6	5	0	111	108	12	0	0	0	0	1	38	
Mongolia	42	17,991	11.5	18	4	X	X	X	3	6,139	0	0	6	631	
Myanmar	3	174	0.3	1	0	3	3	1	0	0	0	0	N/A	N/A	
Nepal	12	1,112	7.6	4	0	X	X	X	0	0	2	208	1	18	
Pakistan	81	3,727	4.7	11	0	3	3	0	1	37	0	0	8	62	
Philippines	19	1,454	4.8	4	0	159	67	126	2	1,174	2	53	4	68	
Singapore	5	3	4.7	0	0	3	3	2	0	0	N/A	N/A	N/A	N/A	
Sri Lanka	110	869	13.3	0	0	16	12	6	2	9	1	9	1	6	
Tajikistan	19	587	4.1	1	0	X	X	X	0	0	0	0	N/A	N/A	
Thailand	158	7,077	13.8	19	0	18	18	17	4	56	1	622	1	<1	
Turkmenistan	23	1,977	4.1	5	0	1	0	1	1	35	0	0	N/A	N/A	
Uzbekistan	11	818	1.8	1	0	X	X	X	1	57	0	0	N/A	N/A	
Viet Nam	54	995	3.0	1	0	2	2	2	1	76	1	150	1	12	
EUROPE	12,356	109,297	4.7	212	12	760	667	246	139	103,149	28	19,292	632	19,838	
Albania	48	84	2.9	0	0	7	7	0	0	0	0	0	1	20	
Austria	695	2,451	29.2	3	0	X	X	X	4	28	0	0	10	116	
Belarus	903	1,304	6.3	0	0	X	X	X	2	305	1 g	88	1	19	
Belgium	72	86	2.8	0	0	2	2	0	0	0	0	0	6	8	
Bosnia and Herzegovina	21	27	0.5	0	0	X	X	X	0	0	0	0	N/A	N/A	
Bulgaria	127	500	4.5	2	0	2	2	0	17	25	2	41	5	3	
Croatia	195	421	7.4	1	0	18	13	6	1	200	1	19	4	80	
Czech Rep	1,789	1,247	15.8	2	0	X	X	X	6 g	435	0	0	10	42	
Denmark (h)	220	1,380	32.0	2	0	76	58	41	1 i	70,000	0	0	38	2,283 j	
Estonia	219	500	11.1	0	0	3	3	3	1	1,560	0	0	10	216	
Finland	260	1,867	5.5	4	0	3	3	1	2	770	0	0	11	101	
France (k)	1,341	7,437	13.5	29	0	126	102	42	8 g	832	2 g	23	15	579	
Germany	1,398	9,620	26.9	26	0	49	48	15	14 g	1,559	1	<1	31	673	
Greece	88	469	3.6	1	0	15	14	1	2	9	2	<1	10	164	
Hungary	186	649	7.0	0	0	X	X	X	5	129	1 g	X	19	150	
Iceland	79	981	9.5	2	0	8	8	0	0	0	0	0	3	59	
Ireland	72	65	0.9	0	0	9	9	0	2	11	0	0	45	67	
Italy	422	2,204	7.3	2	0	59	36	23	5	204	0	0	46	57	
Latvia	158	807	12.5	1	0	2	2	1	1	398	0	0	3	43	
Lithuania	79	645	9.9	0	0	3	2	3	0	0	0	0	5	50	
Macedonia, FYR	26	181	7.1	0	0	X	X	X	0	0	1	X	1	19	
Moldova, Rep	63	47	1.4	0	0	X	X	X	0	0	N/A	N/A	N/A	N/A	
Netherlands (k)	82	232	5.7	0	0	19	18	5	1	260	0	0	18	325	
Norway	180	2,093	6.5	7	0	11	8	7	0	0	0	0	23	70	
Poland	522	2,929	9.1	4	0	6	5	1	8 g	320	1 g	5	8	90	
Portugal	58	603	6.6	1	0	29	25	13	1	1	1	X	10	66	
Romania	157	1,089	4.6	1	0	11	11	0	3 g	679	1	679	1	647	
Russian Federation	219	52,907	3.1	92	12	16	12	10	20	23,386	5	17,343	35	10,324	
Slovakia	1,039	1,085	22.1	1	0	X	X	X	4 g	241	1 g	X	11	37	
Slovenia	32	120	5.9	0	0	1	1	0	0	0	1	<1	2	1	
Spain	328	4,240	8.4	7	0	34	32	5	16	1,008	4 g	110	38	158	
Sweden	348	3,645	8.1	8	0	51	51	4	1	97	1	940	30	383	
Switzerland	257	1,063	25.7	0	0	X	X	X	1	169	0	0	8	7	
Ukraine	28	944	1.6	1	0	5	3	2	5 g	294	0	0	22	716	
United Kingdom (k)	515	5,000	20.4	15	0	192	189	62	13	47	4	11	140	664	
Yugoslavia	104	339	3.3	0	0	2	2	1	1	183	1	32	4	40	
MIDDLE EAST & N. AFRICA	518	25,863	2.1	25	5	126	90	54	21	15,019	5	10,772	48	1,748	
Afghanistan	7	219	0.3	0	0	X	X	X	0	0	0	0	N/A	N/A	
Algeria	18	5,891	2.5	2	2	8	6	3	3	7,294	1	8,000	3	5	
Egypt	16	794	0.8	1	0	18	16	6	2	2,456	0	0	2	106	
Iran, Islamic Rep	78	8,303	5.1	8	1	6	5	1	9	2,610	0	0	20	1,433	
Iraq	8	1	<0.1	0	0	X	X	X	0	0	0	0	N/A	N/A	
Israel	188	326	15.5	1	0	25	18	8	1	27	0	0	2	<1	
Jordan	11	298	3.3	1	0	1	0	1	1	31	0	0	1	7	
Kuwait	5	27	1.5	0	0	4	2	2	0	0	N/A	N/A	N/A	N/A	
Lebanon	3	5	0.5	0	0	1	1	0	0	0	0	0	3	1	
Libyan Arab Jamahiriya	8	173	0.1	1	0	5	2	3	0	0	0	0	N/A	N/A	
Morocco	12	317	0.7	1	0	10	9	3	1	2,569	0	0	4	14	
Oman	3	3,428	16.1	1	0	2	1	2	0	0	1	2,750	N/A	N/A	
Saudi Arabia	71	4,973	2.3	8	2	4	3	4	0	0	0	0	N/A	N/A	
Syrian Arab Rep	0	0	0.0	0	0	X	X	X	0	0	0	0	1	10	
Tunisia	7	45	0.3	0	0	7	5	4	4	32	1	13	1	13	
Turkey	64	985	1.3	1	0	21	15	8	0	0	2	10	9	159	
United Arab Emirates	2	X	X	0	0	4	3	1	0	0	N/A	N/A	N/A	N/A	
Yemen	0	0	0.0	0	0	X	X	X	0	0	0	0	N/A	N/A	

	National Protection Systems										Protected Areas that Are Part of Global Agreements					
	Protected Areas (IUCN Management Categories I-V)															
	Percent of Land Area					Number of Marine Protected Areas (a)					Biosphere Reserves (b)		World Heritage Sites (c)		Wetlands of International Importance (d)	
	Number	Area (000 ha)	Area	No. of Areas at least: 100,000 ha in Size	1 million ha in Size	Total	Littoral	Marine			Number	Area (000 ha)	Number	Area (000 ha)	Number	Area (000 ha)
SUB-SAHARAN AFRICA	1,005	146,904	6.0	202	33	150	128	93			40	39,757	32	29,373	70	14,348
Angola	13	8,181	6.6	9	2	4	4	3			0	0	0	0	N/A	N/A
Benin	2	778	6.9	2	0	X	X	X			1	623	0	0	2	139
Botswana	12	10,499	18.0	7	3	X	X	X			0	0	0	0	1	6,864
Burkina Faso	12	2,855	10.4	6	1	X	X	X			1	186	0	0	3	299
Burundi	13	146	5.3	0	0	1	1	1			0	0	0	0	N/A	N/A
Cameroon	18	2,098	4.4	8	0	2	1	2			3	850	1	526	N/A	N/A
Central African Rep	13	5,110	8.2	11	2	X	X	X			2	1,640	1	1,740	N/A	N/A
Chad	9	11,494	9.0	9	2	X	X	X			0	0	0	0	1	195
Congo	9	1,545	4.5	5	0	1	1	1			2	246	0	0	1	439
Congo, Dem Rep	15	10,191	4.3	9	4	1	1	0			3	283	5	6,855	2	866
Côte d'Ivoire	11	1,986	6.2	4	1	3	3	1			2	1,480	3 g	1,504	1	19
Equatorial Guinea	0	0	0.0	0	0	4	4	0			0	0	N/A	N/A	N/A	N/A
Eritrea	3	501	4.3	2	0	X	X	X			0	0	N/A	N/A	N/A	N/A
Ethiopia	21	5,518	5.0	14	0	X	X	X			0	0	1	22	N/A	N/A
Gabon	5	723	2.7	1	0	4	4	1			1	15	0	0	3	1,080
Gambia	6	23	2.0	0	0	5	5	3			0	0	0	0	1	20
Ghana	10	1,104	4.6	3	0	X	X	X			1	8	0	0	6	178
Guinea	3	164	0.7	1	0	1	0	1			2	133	1 g	13	6	225
Guinea-Bissau	0	0	0.0	0	0	2	2	1			1	110	N/A	N/A	1	39
Kenya	50	3,507	6.0	7	1	14	13	10			5	891	2	300	2	49
Lesotho	1	7	0.2	0	0	X	X	X			0	0	N/A	N/A	N/A	N/A
Liberia	1	129	1.2	1	0	X	X	X			0	0	N/A	N/A	N/A	N/A
Madagascar	40	1,121	1.9	1	0	3	3	1			1	140	1	152	2	53
Malawi	9	1,059	8.9	3	0	X	X	X			0	0	1	9	1	225
Mali	13	4,532	3.7	8	2	X	X	X			1	2,349	1	400	3	162
Mauritania	9	1,746	1.7	3	1	5	5	2			0	0	1	1,200	2	1,216
Mozambique	11	4,779	6.0	7	1	7	7	6			0	0	0	0	N/A	N/A
Namibia	20	10,616	12.9	7	3	4	4	0			0	0	N/A	N/A	4	630
Niger	6	9,694	7.7	4	2	X	X	X			2	25,128	2	7,957	1	220
Nigeria	27	3,021	3.3	9	0	X	X	X			1	<1	0	0	N/A	N/A
Rwanda	6	362	13.8	1	0	X	X	X			1	15	N/A	N/A	N/A	N/A
Senegal	12	2,181	11.1	3	0	7	6	6			3	1,094	2	929	4	100
Sierra Leone	2	82	1.1	0	0	X	X	X			0	0	N/A	N/A	1	295
Somalia	2	180	0.3	1	0	2	2	2			0	0	N/A	N/A	N/A	N/A
South Africa	390	6,619	5.4	6	1	20	17	8			1	104	1	X	16	493
Sudan	11	8,642	3.4	6	2	2	0	2			2	1,901	0	0	N/A	N/A
Tanzania, United Rep	39	13,817	14.6	19	3	9	8	8			2	2,338	4	6,860	N/A	N/A
Togo	9	429	7.6	2	0	1	0	1			0	0	0	0	2	194
Uganda	37	1,913	7.9	6	0	X	X	X			1	220	2	132	1	15
Zambia	35	6,366	8.5	11	1	X	X	X			0	0	1 g	7	2	333
Zimbabwe	48	3,071	7.9	6	1	X	X	X			0	0	2 g	733	N/A	N/A
NORTH AMERICA	6,146	213,822	11.1	255	46	525	357	263			52	22,350	18	20,405	53	14,229
Canada	3,083	90,702	9.1	102	20	139	102	76			8	1,512	8 g	10,664	36	13,051
United States (k)	3,063	123,120	13.1	153	26	386	255	187			44	20,838	12 g	9,741	17	1,178
C. AMERICA & CARIBBEAN	813	16,450	6.1	35	1	369	324	177			29	14,972	11	2,997	47	2,239
Belize	32	479	20.9	2	0	19	18	8			0	0	1	96	2	X
Costa Rica	85	723	14.2	1	0	18	18	11			2	729	3 g	592	9	246
Cuba	81	1,909	17.2	4	0	51	44	25			6	1,384	1	42	N/A	N/A
Dominican Rep (l)	34	1,523	31.3	6	0	12	10	8			0	0	0	0	N/A	N/A
El Salvador	2	5	0.2	0	0	2	2	0			0	0	0	0	1	2
Guatemala	38	1,827	16.8	4	0	4	4	4			2	3,141	1	58	4	503
Haiti	8	10	0.3	0	0	X	X	X			0	0	0	0	N/A	N/A
Honduras	70	673	6.0	1	0	25	25	20			1	800	1	500	4	172
Jamaica	5	2	0.1	0	0	6	4	6			0	0	0	0	1	6
Mexico	166	6,637	3.4	12	1	56	48	24			11	5,393	2	899	6	1,095
Nicaragua	70	908	7.0	1	0	4	4	1			1	2,182	0	0	1	44
Panama	30	1,422	18.8	4	0	14	14	3			2	1,253	2 g	804	3	111
Trinidad and Tobago	25	31	6.0	0	0	14	14	2			0	0	N/A	N/A	1	6
SOUTH AMERICA	1,116	131,663	7.4	202	26	189	172	57			29	50,205	13	9,125	45	11,551
Argentina	147	4,909	1.8	11	0	32	30	4			7	2,235	3 g	861	7	1,000
Bolivia	32	15,601	14.2	19	6	X	X	X			3	735	0	0	2	805
Brazil	519	37,513	4.4	62	5	82	73	25			2	29,699	3 g	1,974	5	4,537
Chile	87	14,142	18.7	19	5	28	24	4			7	2,407	0	0	7	100
Colombia	94	9,363	8.2	18	2	11	10	9			3	2,514	1	72	1	400
Ecuador (l)	22	12,077	42.6	12	1	4	4	3			2	1,446	2	1,038	3	95
Guyana	1	59	0.3	0	0	X	X	X			0	0	0	0	N/A	N/A
Paraguay	20	1,401	3.4	3	0	X	X	X			0	0	0	0	4	775
Peru	21	3,463	2.7	6	1	4	4	1			3	2,701	4	2,180	7	2,932
Suriname	13	736	4.5	3	0	5	5	0			0	0	0	0	1	12
Uruguay	13	48	0.3	0	0	4	4	0			1	200	0	0	1	435
Venezuela	144	32,245	35.4	48	6	18	17	11			1	8,266	1	3,000	5	264
OCEANIA	4,056	60,784	7.1	109	11	519	412	275			13	5,094	17	45,091	60	5,882
Australia (l)	3,727	54,250	7.0	94	10	372	280	226			12	5,093	13	42,297	53	5,249
Fiji	15	20	1.1	0	0	6	6	1			0	0	0	0	N/A	N/A
New Zealand	233	6,334	23.4	15	1	88	81	13			0	0	3	2,756	5	39
Papua New Guinea	6	7	<0.1	0	0	12	10	9			0	0	0	0	2	595
Solomon Islands	0	0	0.0	0	0	6	6	0			0	0	1	37	N/A	N/A
DEVELOPED	23,397	405,509	7.2	617	71	1,983	1,477	905			212	130,955	65	84,778	776	40,458
DEVELOPING	5,045	446,002	5.8	633	83	1,486	1,218	679			156	132,941	84	57,431	238	32,498

Notes: a. Includes areas with substantial terrestrial components that reach the shore. An area can be both, marine and littoral (see technical notes). b. Biosphere reserves shared by several countries are counted only once in regional and world totals. c. Countries that have not signed the World Heritage Convention are designated by N/A. Sites shared by several countries are counted only once in regional and world totals. d. Countries that have not signed the Convention on Wetlands of International Importance are designated by N/A. e. World totals except for Marine Protected Areas and Wetlands of International Importance were calculated by WRI. World total for National Protection Systems excludes protected areas in Antarctica and Greenland. f. Includes one site in Hong Kong. g. Includes sites shared by two or more neighboring countries. h. Categories under National Protection Systems exclude protected areas in Greenland. i. Corresponds to a single site located in Greenland. j. Includes 11 sites in Greenland. k. Excludes protected areas and sites protected under global agreements located in overseas territories (i.e., Guadeloupe, Cayman Islands, etc.). l. Extent of protected areas may include marine components that may lead to some unexpectedly high figures for percent of land area protected.

Sources: World Conservation Monitoring Centre; United Nations Educational, Scientific, and Cultural Organization; and Ramsar Convention Bureau

	Mammals				Birds				Reptiles			
	Total Number of Known Species			No. of Species per 10,000 km ² (a)	Total Number of Known Species			Breeding Bird Species per 10,000 km ² (a)	Total Number of Known Species			No. of Species per 10,000 km ² (a)
	All Species	Endemic Species	Threatened Species		Breeding Species	Endemic Species	Threatened Species		All Species	Endemic Species	Threatened Species	
WORLD (b)	4,629 c	X	1,096	X	9,672 d	X	1,107	X	6,900 e	X	253	X
ASIA (EXCL. MIDDLE EAST)	X	X	X	X	X	X	X	X	X	X	X	X
Armenia	84	3	4	59	242	0	5	169	51	0	3	36
Azerbaijan	99	0	11	49	248	0	8	122	54	0	3	26
Bangladesh	109	0	18	45	295	0	30	122	119	2	13	49
Bhutan	99	0	20	59	448	0	14	269	19	2	1	11
Cambodia	123	0	23	47	307	0	18	118	82	1	9	32
China (f)	400	83	75	41	1,103	70	90	114	340	81	15	35
Georgia	107	2	10	56	X	0	5	X	52	0	7	27
India	316	44	75	47	926	58	73	137	390	188	16	58
Indonesia	457	222	128	81	1,530	408	104	271	514	305	19	91
Japan	188	42	29	57	250	21	33	75	87	33	8	26
Kazakhstan	178	4	15	28	396	0	15	62	49	0	1	8
Korea, Dem People's Rep	X	0	7	X	115	1	19	51	19	2	0	8
Korea, Rep	49	0	6	23	112	0	19	53	25	1	0	12
Kyrgyzstan	83	1	6	31	X	0	5	X	33	0	1	12
Lao People's Dem Rep	172	0	30	61	487	1	27	171	66	1	7	23
Malaysia	300	36	42	95	508	18	34	160	350	71	14	110
Mongolia	133	0	12	25	426	0	14	80	22	0	0	4
Myanmar	251	6	31	62	867	4	44	216	203	37	20	51
Nepal	181	2	28	75	611	2	27	252	100	1	5	41
Pakistan	151	4	13	36	375	0	25	88	172	23	6	41
Philippines	158	102	49	51	196	186	86	64	190	159	7	62
Singapore	85	1	6	213	118	0	9	295	140	0	1	350
Sri Lanka	88	15	14	47	250	24	11	134	144	77	8	77
Tajikistan	84	1	5	35	X	0	9	X	44	0	1	18
Thailand	265	7	34	72	616	2	45	168	298	37	16	81
Turkmenistan	103	0	11	29	X	0	12	X	82	0	2	23
Uzbekistan	97	0	7	28	X	0	11	X	64	0	0	18
Viet Nam	213	9	38	67	535	10	47	168	187	46	12	59
EUROPE	X	X	X	X	X	X	X	X	X	X	X	X
Albania	68	0	2	48	230	0	7	162	31	0	1	22
Austria	83	0	7	41	213	0	5	106	14	0	1	7
Belarus	74	0	4	27	221	0	4	81	7	0	0	3
Belgium	58	0	6	40	180	0	3	125	8	0	0	6
Bosnia and Herzegovina	72	0	10	42	218	0	2	127	27	0	0	16
Bulgaria	81	0	13	37	240	0	12	108	33	0	1	15
Croatia	76	0	10	43	224	0	4	126	29	0	0	16
Czech Rep	81	0	7	41	199	0	6	101	10	0	0	5
Denmark	43	0	3	27	196	0	2	121	5	0	0	3
Estonia	65	0	4	40	213	0	2	130	5	0	0	3
Finland	60	0	4	19	248	0	4	78	5	0	0	2
France	93	0	13	25	269	1	7	72	32	1	3	9
Germany	76	0	8	23	239	0	5	73	12	0	0	4
Greece	95	3	13	41	251	0	10	107	56	8	6	24
Hungary	83	0	8	40	205	0	10	98	15	0	1	7
Iceland	11	0	1	5	88	0	0	41	0	0	0	0
Ireland	25	0	2	13	142	0	1	75	1	0	0	1
Italy	90	3	10	29	234	0	7	76	40	1	4	13
Latvia	83	0	4	45	217	0	6	117	7	0	0	4
Lithuania	68	0	5	37	202	0	4	109	7	0	0	4
Macedonia, FYR	78	0	10	57	210	0	3	154	31	0	1	23
Moldova, Rep	68	0	2	46	177	0	7	119	9	0	1	6
Netherlands	55	0	6	35	191	0	3	120	7	0	0	4
Norway	54	0	4	17	243	0	3	77	5	0	0	2
Poland	84	0	10	27	227	0	6	72	9	0	0	3
Portugal	63	1	13	30	207	2	7	100	29	3	0	14
Romania	84	0	16	29	247	0	11	87	25	0	2	9
Russian Federation	269	22	31	23	628	13	38	54	58	0	5	5
Slovakia	85	0	8	50	209	0	4	124	20	0	0	12
Slovenia	75	0	10	59	207	0	3	164	25	0	0	20
Spain	82	4	19	22	278	5	10	76	53	11	6	15
Sweden	60	0	5	17	249	0	4	71	6	0	0	2
Switzerland	75	0	6	47	193	0	4	121	14	0	0	9
Ukraine	108	1	15	28	263	0	10	68	21	1	2	5
United Kingdom	50	0	4	17	230	1	2	80	8	0	0	3
Yugoslavia	96	0	12	45	224	0	8	104	70	0	1	33
MIDDLE EAST & N. AFRICA	X	X	X	X	X	X	X	X	X	X	X	X
Afghanistan	123	2	11	31	235	0	13	59	103	4	1	26
Algeria	92	2	15	15	192	1	8	32	81	4	1	13
Egypt	98	7	15	21	153	0	11	33	83	0	6	18
Iran, Islamic Rep	140	6	20	26	323	1	14	60	167	29	8	31
Iraq	81	2	7	23	172	1	12	49	81	1	2	23
Israel	116	4	13	91	180	0	8	141	97	1	5	76
Jordan	71	0	7	34	141	0	4	68	73	0	1	35
Kuwait	21	0	1	17	20	0	3	17	29	0	2	24
Lebanon	57	0	5	56	154	0	5	152	42	1	2	41
Libyan Arab Jamahiriya	76	5	11	14	91	0	2	17	56	1	3	10
Morocco	105	4	18	30	210	0	11	60	90	11	2	26
Oman	56	2	9	20	107	0	5	39	64	8	4	23
Saudi Arabia	77	0	9	13	155	0	11	26	84	4	2	14
Syrian Arab Rep	63	2	4	24	204	0	7	78	X	2	3	X
Tunisia	78	1	11	31	173	0	6	69	62	1	2	25
Turkey	116	2	15	28	302	0	14	72	105	7	12	25
United Arab Emirates	25	0	3	12	67	0	4	33	37	1	2	18
Yemen	66	1	5	18	143	8	13	39	77	30	2	21

	Mammals				Birds				Reptiles			
	Total Number of Known Species			No. of Species per 10,000 km ² (a)	Total Number of Known Species			Breeding Bird Species per 10,000 km ² (a)	Total Number of Known Species			No. of Species per 10,000 km ² (a)
	All Species	Endemic Species	Threatened Species		Breeding Species	Endemic Species	Threatened Species		All Species	Endemic Species	Threatened Species	
SUB-SAHARAN AFRICA	X	X	X	X	X	X	X	X	X	X	X	X
Angola	276	7	17	56	765	12	13	156	X	19	5	X
Benin	188	0	9	85	307	0	1	138	X	1	2	X
Botswana	164	0	5	43	386	1	7	101	157	2	0	41
Burkina Faso	147	0	6	49	335	0	1	112	X	3	1	X
Burundi	107	0	5	76	451	0	6	322	X	0	0	X
Cameroon	409	14	32	114	690	8	14	193	183	21	3	51
Central African Rep	209	2	11	53	537	1	2	137	129	0	1	33
Chad	134	1	14	27	370	0	3	75	5	1	1	1
Congo	200	2	10	62	449	0	3	140	X	1	2	X
Congo, Dem Rep	450	28	38	74	929	24	26	153	377	35	3	62
Côte d'Ivoire	230	0	16	73	535	2	12	170	X	3	4	X
Equatorial Guinea	184	1	12	131	273	3	4	194	X	4	2	X
Eritrea	112	0	6	50	319	0	3	141	85	1	3	38
Ethiopia (g)	255	31	35	54	626	28	20	133	188	9	1	40
Gabon	190	3	12	64	466	1	4	157	X	3	3	X
Gambia	117	0	4	112	280	0	1	269	47	1	1	45
Ghana	222	1	13	78	529	0	10	186	X	1	4	X
Guinea	190	1	11	66	409	0	12	142	X	3	3	X
Guinea-Bissau	108	0	4	71	243	0	1	159	X	2	3	X
Kenya	359	23	43	94	847	9	24	222	190	18	5	50
Lesotho	33	0	2	23	58	0	5	40	X	2	0	X
Liberia	193	0	11	87	372	1	13	168	62	2	3	28
Madagascar	141	93	46	37	202	105	28	53	363	259	17	95
Malawi	195	0	7	86	521	0	9	230	124	7	0	55
Mali	137	0	13	28	397	0	6	81	16	4	1	3
Mauritania	61	1	14	13	273	0	3	59	X	1	3	X
Mozambique	179	2	13	42	498	0	14	117	167	5	5	39
Namibia	250	3	11	58	469	3	8	109	250	25	3	58
Niger	131	0	11	27	299	0	2	60	X	0	1	X
Nigeria	274	4	26	62	681	2	9	153	135	7	4	30
Rwanda	151	0	9	110	513	0	6	373	X	1	0	X
Senegal	192	0	13	72	384	0	6	144	100	1	7	37
Sierra Leone	147	0	9	77	466	1	12	243	X	1	3	X
Somalia	171	12	18	43	422	11	8	107	193	49	2	49
South Africa	255	35	33	52	596	8	16	122	315	97	19	65
Sudan	267	11	21	43	680	1	9	110	X	8	3	X
Tanzania, United Rep	316	15	33	70	827	24	30	184	289	61	4	64
Togo	196	0	8	110	391	0	1	220	X	1	3	X
Uganda	338	6	18	118	830	3	10	290	149	2	1	52
Zambia	233	3	11	56	605	2	10	145	145	3	0	35
Zimbabwe	270	0	9	81	532	0	9	159	153	2	0	46
NORTH AMERICA	X	X	X	X	X	X	X	X	X	X	X	X
Canada	193	7	7	20	426	5	5	44	41	0	3	4
United States	432	105	35	45	650	67	50	68	287	79	28	30
C. AMERICA & CARIBBEAN	X	X	X	X	X	X	X	X	X	X	X	X
Belize	125	0	5	95	356	0	1	271	107	2	5	81
Costa Rica	205	7	14	120	600	6	13	350	214	38	7	125
Cuba	31	12	9	14	137	21	13	62	105	83	7	47
Dominican Rep	20	0	4	12	136	0	11	81	117	34	10	69
El Salvador	135	0	2	106	251	0	0	196	73	4	6	57
Guatemala	250	3	8	114	458	1	4	208	235	24	9	107
Haiti	3	0	4	2	75	1	11	54	108	35	6	77
Honduras	173	2	7	78	422	1	4	190	162	22	7	73
Jamaica	24	2	4	23	113	26	7	110	36	27	8	35
Mexico	491	140	64	86	772	92	36	135	704	368	18	123
Nicaragua	200	2	4	86	482	0	3	207	161	6	7	69
Panama	218	16	17	112	732	9	10	376	226	25	7	116
Trinidad and Tobago	100	1	1	125	260	1	3	324	70	3	5	87
SOUTH AMERICA	X	X	X	X	X	X	X	X	X	X	X	X
Argentina	320	49	27	50	897	19	41	140	234	78	5	37
Bolivia	316	16	24	67	X	18	27	X	211	20	3	45
Brazil	417	119	71	45	1,500	185	103	162	491	201	15	53
Chile	91	16	16	22	296	16	18	71	82	43	1	20
Colombia	359	34	35	75	1,700	67	64	356	593	115	15	124
Ecuador	302	25	28	100	1,388	37	53	460	380	120	12	126
Guyana	193	1	10	70	678	0	3	246	X	2	8	X
Paraguay	305	2	10	90	556	0	26	164	120	3	3	35
Peru	460	49	46	93	1,541	112	64	310	360	96	9	73
Suriname	180	2	10	72	603	0	2	240	151	0	6	60
Uruguay	81	1	5	31	237	0	11	92	X	1	0	X
Venezuela	323	19	24	73	1,340	40	22	302	283	66	14	64
OCEANIA	X	X	X	X	X	X	X	X	X	X	X	X
Australia	260	206	58	29	649	350	45	72	748	641	37	83
Fiji	4	1	4	3	74	24	9	61	25	11	6	20
New Zealand	2	2	3	1	150	74	44	51	52	48	11	18
Papua New Guinea	222	65	57	63	653	94	31	184	280	80	10	79
Solomon Islands	53	21	20	37	163	43	18	115	61	11	4	43

Notes: a. Values are standardized using a species-area curve. b. World totals include countries not listed. c. Includes cetaceans. World total comes from: D.E. Wilson and D.M. Reeder (eds.), 1993. d. World total comes from C.G. Sibley and B.L. Monroe, 1993. e. World total was estimated by the World Conservation Monitoring Centre. f. Total number of species, number of endemics, and the species per 10,000 square kilometers calculations include Hong Kong, SAR. g. Total number of species and endemics for mammals and birds are for the Former People's Democratic Republic of Ethiopia, which included Eritrea.

Sources: World Conservation Monitoring Centre, IUCN-The World Conservation Union, Food and Agriculture Organization of the United Nations, and other multiple sources.

	Amphibians				Freshwater Fish			Plants								
	Total Number of Known Species			No. of Species per 10,000 km² (a)	Total Number of Known Species		Total Number of Known Species			Endemic Species of Higher		Threatened Species of Higher	No. of Plant Species per 10,000 km² (a)			
	All Species	Endemic Species	Threatened Species		All Species	Threatened Species (b)	Higher Plants (c)	Flowering Plants	Ferns	Species of Higher Plants (c)	Species of Higher Plants (c)					
WORLD (d)	4,522	e	X	124	X	25,000	f	734	270,000	g	X	X	X	25,971	h	X
ASIA (EXCL. MIDDLE EAST)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Armenia	7	0	0	5	41	0	3,300	3,300	X	X	19	X				
Azerbaijan	10	0	0	5	61	5	4,300	X	X	240	12	2,109				
Bangladesh	19	0	0	8	260	0	5,000	5,000	X	X	18	2,074				
Bhutan	24	0	0	14	44	0	5,468	5,446	X	75	5	3,281				
Cambodia	28	0	0	11	215	5	X	X	X	X	0	X				
China (i)	290	158	1	30	686	28	32,200	30,000	2,000	18,000	113	3,340				
Georgia	13	0	0	7	84	3	4,350	X	X	380	12	2,292				
India	209	122	3	31	748	4	16,000	15,000	1,000	5,000	785	2,363				
Indonesia	285	115	0	50	1,400	60	29,375	27,500	1,875	17,500	184	5,196				
Japan	61	45	10	18	186	7	5,565	4,700	630	2,000	537	1,679				
Kazakhstan	12	0	1	2	104	5	X	X	X	X	36	X				
Korea, Dem People's Rep	14	2	0	6	X	0	2,898	2,898	X	107	0	1,274				
Korea, Rep	14	0	0	7	130	0	2,898	2,898	X	224	52	1,359				
Kyrgyzstan	4	0	0	1	75	0	3,786	70	X	X	7	1,412				
Lao People's Dem Rep	37	2	0	13	262	4	X	X	X	X	1	X				
Malaysia	189	70	0	60	449	14	15,500	12,500	1,100	3,600	371	4,890				
Mongolia	6	0	0	1	75	0	2,823	2,272	X	229	0	533				
Myanmar	75	10	0	19	300	1	7,000	7,000	X	1,071	6	1,742				
Nepal	43	11	0	18	185	0	6,973	5,160	380	315	7	2,871				
Pakistan	17	4	0	4	156	1	4,950	4,929	X	372	5	1,168				
Philippines	92	73	2	30	230	26	8,931	8,000	900	3,500	320	2,907				
Singapore	24	0	0	60	41	1	2,282	2,000	170	2	2	5,713				
Sri Lanka	39	20	0	21	65	8	3,314	3,000	314	890	431	1,781				
Tajikistan	2	1	0	1	49	1	X	X	X	X	25	X				
Thailand	112	21	0	31	600	14	11,625	11,000	600	X	355	3,170				
Turkmenistan	5	0	0	1	107	5	X	X	X	X	13	X				
Uzbekistan	2	0	0	1	83	3	4,800	X	X	400	11	1,369				
Viet Nam	80	27	1	25	450	3	10,500	7,000	X	1,260	297	3,306				
EUROPE	X	X	X	X	X	X	X	X	X	X	X	X				
Albania	13	0	0	9	39	7	3,031	2,965	45	24	17	2,139				
Austria	20	0	0	10	60	7	3,100	2,950	66	35	6	1,537				
Belarus	12	0	0	4	40	0	2,100	1,590	28	X	0	772				
Belgium	17	0	0	12	X	1	1,550	1,400	50	1	0	1,073				
Bosnia and Herzegovina	16	0	1	9	56	6	X	X	X	X	1	X				
Bulgaria	17	0	0	8	X	8	3,572	3,505	52	320	59	1,615				
Croatia	20	0	1	11	87	20	X	X	X	X	0	X				
Czech Rep	19	0	0	10	56	6	X	X	X	X	7	X				
Denmark	14	0	0	9	41	0	1,450	1,200	50	1	1	895				
Estonia	11	0	0	7	30	1	1,674	1,630	40	X	1	1,018				
Finland	5	0	0	2	66	1	1,102	1,040	58	X	0	345				
France	32	3	2	9	53	3	4,630	4,500	110	133	86	1,233				
Germany	20	0	0	6	71	7	2,682	2,600	72	6	3	824				
Greece	15	2	1	6	98	16	4,992	4,900	71	742	446	2,131				
Hungary	16	0	0	8	81	11	2,411	2,343	60	38	8	1,155				
Iceland	0	0	0	0	7	0	377	340	36	1	1	175				
Ireland	3	0	0	2	25	1	950	892	56	X	0	499				
Italy	41	12	4	13	45	9	5,599	5,463	106	712	202	1,820				
Latvia	13	0	0	7	109	1	1,205	1,153	48	X	0	651				
Lithuania	13	0	0	7	X	1	1,796	1,328	21	X	0	967				
Macedonia, FYR	13	0	0	10	55	4	3,500	X	X	X	X	2,563				
Moldova, Rep	13	0	0	9	82	9	1,752	X	X	X	0	1,173				
Netherlands	16	0	0	10	X	1	1,221	1,170	48	X	0	767				
Norway	5	0	0	2	31	1	1,715	1,650	61	1	4	544				
Poland	18	0	0	6	104	2	2,450	2,300	62	3	1	778				
Portugal	17	0	1	8	28	9	5,050	2,500	65	150	186	2,428				
Romania	19	0	0	7	87	11	3,400	3,175	62	41	34	1,194				
Russian Federation	41	0	0	4	290	13	X	X	X	X	129	X				
Slovakia	20	0	0	12	78	7	3,124	X	X	92	11	1,849				
Slovenia	20	0	1	16	95	5	3,200	X	X	22	3	2,535				
Spain	28	4	3	8	50	10	5,050	4,916	114	941	822	1,383				
Sweden	13	0	0	4	51	1	1,750	1,650	60	1	3	498				
Switzerland	18	0	0	11	48	4	3,030	2,927	87	1	2	1,898				
Ukraine	17	0	0	4	90	12	5,100	X	X	X	20	1,318				
United Kingdom	7	0	0	2	36	1	1,623	1,550	70	16	13	565				
Yugoslavia	21	0	0	10	110	13	4,082	3,905	68	X	50	1,896				
MIDDLE EAST & N. AFRICA	X	X	X	X	X	X	X	X	X	X	X	X				
Afghanistan	6	1	1	2	84	0	4,000	3,500	X	800	0	1,008				
Algeria	10	0	0	2	X	1	3,164	3,100	46	250	125	520				
Egypt	6	0	0	1	70	0	2,076	2,066	6	70	59	454				
Iran, Islamic Rep	11	5	2	2	269	7	8,000	X	X	X	0	1,489				
Iraq	6	0	0	2	X	2	X	X	X	X	X	X				
Israel	7	0	0	5	36	0	2,805	2,780	25	X	19	2,194				
Jordan	X	0	0	X	26	0	2,200	2,200	X	X	4	1,069				
Kuwait	2	0	0	2	X	0	234	234	X	X	X	193				
Lebanon	8	0	0	8	60	0	3,000	2,863	35	X	3	2,961				
Libyan Arab Jamahiriya	3	0	0	1	X	0	1,825	1,800	15	134	41	331				
Morocco	11	1	0	3	X	1	3,675	3,600	56	625	182	1,049				
Oman	X	0	0	X	3	3	1,204	1,182	14	73	19	439				
Saudi Arabia	X	0	0	X	8	0	2,028	1,729	X	X	1	345				
Syrian Arab Rep	X	0	0	X	X	0	3,000	X	X	X	7	1,145				
Tunisia	7	0	0	3	X	0	2,196	2,150	36	X	6	873				
Turkey	18	3	2	4	152	18	8,650	8,472	85	2,675	1,610	2,059				
United Arab Emirates	X	0	0	X	5	1	X	X	X	X	X	X				
Yemen	X	1	0	X	5	0	1,650	X	X	135	124	446				

	Amphibians				Freshwater Fish		Plants						
	Total Number of Known Species			No. of Species per 10,000 km² (a)	Total Number of Known Species		Total Number of Known Species			Endemic Species of Higher Plants (c)	Threatened Species of Higher Plants (c)	No. of Plant Species per 10,000 km² (a)	
	All Species	Endemic Species	Threatened Species		All Species	Threatened Species (b)	Higher Plants (c)	Flowering Plants	Ferns				
SUB-SAHARAN AFRICA	X	X	X	X	X	X	X	X	X	X	X	X	
Angola	X	22	0	X	X	0	5,185	5,000	185	1,260	20	1,055	
Benin	X	0	0	X	150	0	2,201	2,000	200	X	2	990	
Botswana	38	0	0	10	92	0	2,151	X	15	17	0	563	
Burkina Faso	X	0	0	X	X	0	1,100	1,100	X	X	X	369	
Burundi	X	2	0	X	X	0	2,500	2,500	X	X	0	1,783	
Cameroon	190	66	1	53	354	26	8,260	8,000	257	156	67	2,310	
Central African Rep	47	0	0	12	X	0	3,602	3,600	X	100	1	921	
Chad	X	0	0	X	X	0	1,600	1,600	X	X	5	322	
Congo	X	1	0	X	X	0	6,000	4,350	X	1,200	2	1,870	
Congo, Dem Rep	80	53	0	13	X	1	11,007	2,867	381	1,100	69	1,818	
Côte d'Ivoire	X	3	1	X	X	0	3,660	3,517	143	62	42	1,163	
Equatorial Guinea	X	2	1	X	X	0	3,250	3,000	250	66	6	2,312	
Eritrea	19	2	0	8	X	0	X	X	X	X	X	X	
Ethiopia { j }	62	24	0	13	150	0	6,603	6,500	100	1,000	125	1,398	
Gabon	X	4	0	X	X	0	6,651	6,500	150	X	78	2,248	
Gambia	30	0	0	29	79	0	974	966	8	X	0	935	
Ghana	X	4	0	X	X	0	3,725	3,600	124	43	22	1,308	
Guinea	X	3	1	X	X	0	3,000	3,000	X	88	29	1,043	
Guinea-Bissau	X	1	0	X	X	0	1,000	1,000	X	12	X	655	
Kenya	88	10	0	23	X	20	6,506	6,000	500	265	130	1,703	
Lesotho	X	0	0	X	8	1	1,591	1,576	15	2	0	1,103	
Liberia	38	4	1	17	X	0	2,200	2,200	X	103	1	993	
Madagascar	179	155	2	47	121	13	9,505	9,000	500	6,500	255	2,479	
Malawi	69	3	0	31	X	0	3,765	3,600	161	49	46	1,665	
Mali	X	1	0	X	X	0	1,741	1,741	X	11	5	355	
Mauritania	X	0	0	X	X	0	1,100	1,100	X	X	2	239	
Mozambique	62	1	0	15	X	2	5,692	5,500	183	219	57	1,340	
Namibia	51	2	1	12	114	3	4,040	3,978	61	687	14	942	
Niger	X	0	0	X	X	0	1,178	1,170	8	X	X	238	
Nigeria	109	1	0	24	260	0	4,715	4,614	100	205	16	1,059	
Rwanda	X	1	0	X	X	0	2,290	2,288	X	26	0	1,664	
Senegal	2	1	0	1	79	0	2,086	2,062	24	26	15	780	
Sierra Leone	X	2	0	X	X	0	2,090	2,090	X	74	8	1,091	
Somalia	27	3	0	7	X	3	3,028	3,000	26	500	57	768	
South Africa	108	49	9	22	94	27	23,420	23,000	380	X	1,875	4,797	
Sudan	X	1	0	X	X	0	3,137	3,132	X	50	2	507	
Tanzania, United Rep	133	49	0	30	X	19	10,008	10,000	X	1,122	326	2,231	
Togo	X	3	0	X	X	0	3,085	2,484	99	X	0	1,739	
Uganda	50	1	0	17	291	28	5,406	5,000	400	X	8	1,891	
Zambia	65	1	0	16	106	0	4,747	4,600	146	211	5	1,141	
Zimbabwe	120	3	0	36	112	0	4,440	4,200	234	95	73	1,325	
NORTH AMERICA	X	X	X	X	X	X	X	X	X	X	X	X	
Canada	41	0	1	4	177	13	3,270	2,920	65	147	40	335	
United States	263	152	24	28	822	123	19,473	16,302	549	4,036	2,449	2,036	
C. AMERICA & CARIBBEAN	X	X	X	X	X	X	X	X	X	X	X	X	
Belize	32	1	0	24	63	4	2,894	2,750	134	150	10	2,200	
Costa Rica	168	39	1	98	130	0	12,119	11,000	1,110	950	296	7,074	
Cuba	55	50	0	25	28	4	6,522	6,004	495	3,229	834	2,949	
Dominican Rep	35	15	1	21	16	0	5,657	5,000	650	1,800	62	3,354	
El Salvador	23	0	0	18	16	0	2,911	2,500	400	17	8	2,277	
Guatemala	107	34	0	49	220	0	8,681	8,000	652	1,171	170	3,948	
Haiti	56	27	1	40	16	0	5,242	4,685	550	1,623	36	3,743	
Honduras	81	34	0	36	46	0	5,680	5,000	650	148	34	2,559	
Jamaica	24	21	4	23	6	0	3,308	2,746	558	923	681	3,207	
Mexico	310	194	3	54	506	86	26,071	25,000	1,000	12,500	911	4,569	
Nicaragua	59	2	0	25	50	0	7,590	7,000	576	40	29	3,256	
Panama	164	22	0	84	101	1	9,915	9,000	900	1,222	1,018	5,088	
Trinidad and Tobago	26	3	0	32	76	0	2,259	1,982	277	236	11	2,816	
SOUTH AMERICA	X	X	X	X	X	X	X	X	X	X	X	X	
Argentina	153	45	5	24	410	1	9,372	9,000	359	1,100	83	1,463	
Bolivia	122	28	0	26	389	0	18,316	17,000	1,300	4,000	107	3,885	
Brazil	581	375	5	63	3,000	12	56,215	55,000	1,200	X	751	6,058	
Chile	49	34	3	12	44	4	5,292	5,125	150	2,698	268	1,269	
Colombia	684	230	0	143	1,500	5	51,220	50,000	1,200	1,500	429	10,735	
Ecuador	426	162	0	141	706	1	19,362	18,250	1,100	4,000	642	6,421	
Guyana	X	14	0	X	X	0	6,409	6,000	407	X	54	2,329	
Paraguay	85	3	0	25	X	0	7,851	7,500	350	X	38	2,311	
Peru	376	152	1	76	855	0	18,245	17,121	1,100	5,356	653	3,674	
Suriname	95	8	0	38	300	0	5,018	4,700	315	X	33	1,997	
Uruguay	X	4	0	X	X	0	2,278	2,184	93	40	2	882	
Venezuela	245	122	0	55	1,270	5	21,073	20,000	1,059	8,000	252	4,752	
OCEANIA	X	X	X	X	X	X	X	X	X	X	X	X	
Australia	205	183	25	23	216	37	15,638	15,000	400	14,074	1,871	1,741	
Fiji	2	2	1	2	X	0	1,628	1,307	310	760	64	1,334	
New Zealand	3	3	1	1	29	8	2,382	2,160	200	1,942	165	802	
Papua New Guinea	225	128	0	63	282	13	11,544	10,000	X	X	66	3,257	
Solomon Islands	17	9	0	12	X	0	3,172	2,780	370	30	21	2,235	

Notes: a. Values are standardized using a species-area curve. b. Includes some marine fish species. c. Higher plants include flowering plants, conifers and cycads, and ferns and fern-allies. d. World totals include countries not listed. e. World total is from D.R. Frost (ed.), 1985. f. World total includes both marine and freshwater fish; freshwater fish make up around 40-45 percent of this estimate. World total comes from W.N. Eschmeyer et al., 1998. g. World total is from K.S. Walter and H.J. Gillett (eds.), 1998. h. This is a subset of the 31,195 species listed as threatened in the "1997 IUCN Red List of Threatened Plants." This subset of 25,971 records refer to full species (i.e., taxa listed as threatened at the intraspecific level are not included) that occur in a single country. "Country" is used in a general sense; for example, figures are provided for overseas dependencies. i. Total number of species, number of endemics, and the species per 10,000 square kilometers calculations include Hong Kong, SAR. j. Total number of fish, total number of higher plants, and endemic higher plants are for the Former People's Democratic Republic of Ethiopia, which included Eritrea.

Sources: World Conservation Monitoring Centre, IUCN-The World Conservation Union, Food and Agriculture Organization of the United Nations, and other multiple sources.

	CITES Entered into Force (year)	CITES Reporting Met as of 1997 (a) (percent)	International Legal Net Trade Reported by CITES, 1997 (b)									
			Number of:					Number of:				
			Live Primates	Live Parrots	Live Tortoises	Live Lizards	Live Snakes	Wild Orchids	Cat Skins	Crocodile Skins	Lizard Skins	Snake Skins
WORLD (c)	X	X	25,733	235,336	76,079	948,497	258,715	343,801	21,864	850,198	1,637,973	1,457,767
ASIA (EXCL. MIDDLE EAST)	X	X	(9,787)	20,748	26,799	79,529	(19,677)	(52,312)	(8,013)	448,884	(397,934)	(794,741)
Armenia	N/A	N/A	X	X	X	X	X	X	X	X	X	X
Azerbaijan	1999	X	4	X	X	X	2	X	X	X	X	X
Bangladesh	1982	75	X	39	X	X	X	X	X	X	X	(4,301)
Bhutan	N/A	N/A	X	X	X	X	X	X	X	X	X	X
Cambodia	1997	0	X	X	X	X	X	X	X	X	X	X
China	1981	100	(5,966)	4,731	(1,271)	103	46,222	(100,210)	(17,999)	105,946	13,236	867
Georgia	1996	0	X	X	X	X	X	X	X	X	X	X
India	1976	100	9	7	(1)	X	(1)	1	X	16	15	(510)
Indonesia	1979	95	(3,955)	(18,334)	(1,784)	(10,296)	(76,862)	(102)	X	(260)	(511,000)	(441,902)
Japan	1980	94	3,556	9,413	30,670	39,255	4,772	128,911	(354)	82,166	318,159	120,999
Kazakhstan	2000	X	1	4	X	X	X	X	X	X	X	X
Korea, Dem People's Rep	N/A	N/A	X	X	10	21	72	X	X	X	X	X
Korea, Rep	1993	100	62	661	31	45,448	279	100,300	9,550	70,332	20,140	36,416
Kyrgyzstan	N/A	N/A	2	X	X	X	X	X	X	X	X	X
Lao People's Dem Rep	N/A	N/A	X	(1)	X	X	X	X	X	X	X	(2,657)
Malaysia	1978	90	74	1,603	(877)	1,408	(8,708)	(2,837)	X	2,702	(237,993)	(432,512)
Mongolia	1996	100	X	X	X	X	X	X	(40)	X	X	X
Myanmar	1997	0	X	X	X	X	X	X	X	X	X	X
Nepal	1975	78	X	574	X	X	X	X	X	X	X	X
Pakistan	1976	82	14	(702)	X	X	1	X	X	1	X	X
Philippines	1981	82	(2,809)	772	10	475	15	197	X	X	X	0
Singapore	1987	100	17	9,277	60	99	2,376	5,043	X	5,327	(53,097)	10,082
Sri Lanka	1979	68	0	364	X	X	X	X	X	X	X	X
Tajikistan	N/A	N/A	X	X	X	X	X	X	X	X	X	X
Thailand	1983	73	(6)	3,449	1	1,809	X	(207,579)	X	146,613	(7,367)	(427,079)
Turkmenistan	N/A	N/A	X	1	X	X	X	X	X	X	X	X
Uzbekistan	1997	0	31	12	X	X	2	X	X	X	X	X
Viet Nam	1994	50	(819)	(246)	(394)	(81)	(7,416)	(1,951)	X	X	X	(55,718)
EUROPE	X	X	10,607	140,449	(8,283)	182,643	30,422	16,880	9,210	270,814	353,031	322,871
Albania	N/A	N/A	X	X	X	X	X	X	X	X	X	X
Austria	1982	100	16	342	X	175	104	2,778	1	(331)	6,219	2
Belarus	1995	67	X	9	3,430	X	(1)	X	X	X	X	X
Belgium	1984	100	670	6,094	1,147	24,399	2,676	270	1	23	72	X
Bosnia and Herzegovina	N/A	N/A	X	X	X	X	X	X	X	X	X	X
Bulgaria	1991	71	1	17	(1)	6	19	X	X	X	X	X
Croatia	2000	X	5	15	(1)	X	X	X	X	0	30	30
Czech Rep	1992	100	66	(3,927)	987	9,802	(161)	541	X	X	X	X
Denmark	1977	95	0	45	607	5,130	476	202	(246)	81	133	0
Estonia	1992	83	7	X	X	1	1	X	(12)	X	X	X
Finland	1976	82	X	6	295	129	44	142	X	X	X	X
France	1978	100	3,332	7,508	4,730	13,870	6,767	1,791	150	143,202	58,271	3,040
Germany	1976	100	812	8,182	788	23,809	4,135	3,157	112	(17,362)	35,051	(25,092)
Greece	1993	100	2	5,900	428	150	2	X	672	5	5	542
Hungary	1985	85	8	(580)	(140)	445	(26)	X	2	X	X	143
Iceland	2000	X	X	X	X	X	X	X	X	X	X	X
Ireland (d)	N/A	N/A	(1)	(133)	8	(10)	X	50	X	X	X	X
Italy	1979	100	384	6,528	606	9,892	2,357	280	3,198	108,544	75,014	293,169
Latvia	1997	100	0	(1)	X	4	0	X	10	X	X	X
Lithuania	N/A	N/A	10	5	X	X	3	X	X	X	X	X
Macedonia, FYR	N/A	N/A	X	X	X	X	X	X	X	X	X	X
Moldova, Rep	N/A	N/A	X	X	X	X	X	X	X	X	X	X
Netherlands	1984	100	412	(11,706)	2,081	20,164	3,087	6,100	X	0	(3)	(24)
Norway	1976	91	5	730	10	3	(4)	2	54	X	X	X
Poland	1990	88	48	254	64	1,068	62	105	4	1	X	50
Portugal	1981	71	16	37,429	54	2,127	2	X	X	4	23	4
Romania	1994	50	5	3	X	X	4	X	X	X	X	X
Russian Federation	1976	82	2,144	1,641	(28,547)	(1,098)	(312)	X	(1,627)	5	0	X
Slovakia	1992	100	(7)	(682)	556	689	308	104	X	X	X	X
Slovenia	2000	X	11	10	X	X	7	X	X	62	588	3
Spain	1986	100	88	78,753	2,720	50,654	5,543	(38)	4	13,422	167,021	36,810
Sweden	1975	100	111	(181)	48	1,805	- 28	303	1	4	3	X
Switzerland	1975	100	21	162	(455)	1,953	1,561	640	(126)	28,778	9,857	(19,872)
Ukraine	2000	X	14	3	3	1,123	54	X	X	X	X	X
United Kingdom	1976	100	2,424	3,297	1,684	16,326	3,652	453	7,000	(5,624)	747	34,066
Yugoslavia	N/A	N/A	3	79	X	X	X	X	X	X	X	X
MIDDLE EAST & N. AFRICA	X	X	(31)	8,552	(945)	904	1,131	1	0	469	3,590	4,112
Afghanistan	1986	0	X	X	X	X	X	X	X	X	X	X
Algeria	1984	64	X	5	(169)	(2)	10	X	X	X	X	X
Egypt	1978	15	0	147	(2)	(40)	46	1	X	X	X	X
Iran, Islamic Rep	1976	68	77	(3)	X	3	4	X	X	X	X	X
Iraq	N/A	N/A	X	X	X	X	X	X	X	X	X	X
Israel	1980	44	(121)	3,011	1	3,734	944	X	X	(17)	10	X
Jordan	1979	32	2	37	X	X	X	X	X	X	X	X
Kuwait (d)	N/A	N/A	3	1,046	X	X	2	X	X	X	X	X
Lebanon	N/A	N/A	X	194	(46)	(5)	2	X	X	483	3,540	4
Libyan Arab Jamahiriya	N/A	N/A	X	211	(669)	X	X	X	X	X	X	X
Morocco	1976	59	(30)	99	(160)	75	3	X	X	X	X	X
Oman	N/A	N/A	1	1	(5)	X	X	X	X	X	X	X
Saudi Arabia	1996	0	1	1,406	(9)	17	49	X	X	X	40	(2)
Syrian Arab Rep	N/A	N/A	12	(2)	(2)	X	X	X	X	X	X	X
Tunisia	1975	100	X	132	(7)	X	8	X	X	X	X	X
Turkey	1996	50	1	113	158	34	3	X	X	X	X	4,110
United Arab Emirates	1990	63	24	919	(33)	(1,136)	58	X	X	3	X	X
Yemen	1997	0	X	1	(2)	(1,776)	X	X	X	X	X	X

	CITES Entered into Force (year)	CITES Reporting Requirements Met as of 1997 (a) (percent)	International Legal Net Trade Reported by CITES, 1997 (b)									
			Number of:							Number of:		
			Live Primates	Live Parrots	Live Tortoises	Live Lizards	Live Snakes	Wild Orchids	Cat Skins	Crocodile Skins	Lizard Skins	Snake Skins
SUB-SAHARAN AFRICA	X	X	(9,902)	(102,051)	(38,501)	(201,723)	(123,359)	(7,026)	0	(60,482)	(253,211)	(25,700)
Angola	N/A	N/A	(8)	5	X	X	X	X	X	X	X	(4)
Benin	1984	29	X	X	(5,177)	(15,488)	(56,591)	X	X	X	X	(2)
Botswana	1978	90	X	11	X	X	X	X	X	(337)	X	X
Burkina Faso	1990	63	X	(2)	X	X	X	X	X	X	X	X
Burundi	1988	30	X	(1)	X	(200)	X	X	X	X	X	X
Cameroon	1981	71	(85)	(1,083)	X	(5,781)	(39)	(50)	X	X	(40,410)	(9,900)
Central African Rep	1980	50	X	(18)	X	X	(1)	X	X	X	X	X
Chad	1989	56	X	(1)	X	X	X	X	X	X	(36,051)	X
Congo	1983	93	X	(498)	2	X	X	X	X	X	X	X
Congo, Dem Rep	1976	77	(8)	(13,431)	X	X	X	X	X	X	X	X
Côte d'Ivoire	1995	0	X	(28)	(1)	X	1	41	X	X	X	(2)
Equatorial Guinea	1992	17	X	(2)	X	X	X	X	X	X	X	X
Eritrea	1995	0	X	X	X	X	X	X	X	X	X	X
Ethiopia	1989	89	(144)	2	X	X	X	X	X	X	X	X
Gabon	1989	78	20	(6)	X	X	X	X	X	X	X	X
Gambia	1977	43	X	X	X	X	X	X	X	X	X	X
Ghana	1976	86	(70)	(6)	(5,176)	(17,809)	(25,481)	X	X	X	X	(10)
Guinea	1981	59	X	(14,279)	X	(46)	(576)	X	X	X	X	(1)
Guinea-Bissau	1990	0	(1)	(9)	X	X	X	X	X	X	X	X
Kenya	1979	58	(436)	(320)	3	X	X	35	X	(782)	X	X
Lesotho (d)	N/A	N/A	X	X	X	X	X	X	X	X	X	X
Liberia	1981	47	X	X	X	X	X	X	X	X	X	X
Madagascar	1975	91	0	(3,633)	(9)	(83,029)	X	(7,070)	X	(6,748)	12	73
Malawi	1982	81	X	1	X	X	X	X	X	(400)	X	X
Mali	1994	100	X	(4,326)	(720)	(14,480)	(2,101)	X	X	X	(132,820)	(8,754)
Mauritania	1998	X	X	X	X	X	X	X	X	X	X	X
Mozambique	1981	82	(82)	(102)	(17,534)	(8,333)	(309)	X	X	(1,430)	X	X
Namibia	1991	86	0	416	(26)	5	1	X	X	(120)	X	(1)
Niger	1975	52	X	(68)	(46)	188	(5)	X	X	X	X	X
Nigeria	1975	43	X	(157)	(20)	X	X	X	X	X	X	(4)
Rwanda	1981	18	X	X	X	310	25	X	X	X	X	X
Senegal	1977	86	(1)	(17,188)	129	X	X	X	X	20	X	(2)
Sierra Leone	1995	33	X	(98)	X	X	X	X	X	X	X	X
Somalia	1986	8	X	X	X	X	X	X	X	X	X	X
South Africa	1975	96	(148)	(46,078)	(84)	(58)	109	789	X	(13,351)	3,894	935
Sudan	1983	60	(17)	X	X	X	X	X	X	X	(62,010)	(8,019)
Tanzania, United Rep	1980	89	(2,413)	3	(1,383)	(30,834)	(36)	X	X	(650)	(1)	(4)
Togo	1979	79	(15)	(470)	(4,771)	(26,356)	(38,358)	X	X	12	8	(5)
Uganda	1991	57	(2)	4	X	X	X	X	X	X	(9)	X
Zambia	1981	65	2	5	(3,655)	X	X	X	X	(4,936)	X	X
Zimbabwe	1981	76	(1)	(1,038)	3	X	X	(901)	X	(35,230)	X	X
NORTH AMERICA	X	X	10,877	(350)	23,633	651,939	152,004	61,923	(1,195)	(101,653)	401,997	108,818
Canada	1975	100	1,016	997	(122)	11,146	1,772	2,805	261	280	42	573
United States	1975	91	9,861	(1,347)	23,755	640,793	150,232	59,118	(1,456)	(101,933)	401,955	108,245
C. AMERICA & CARIBBEAN	X	X	(370)	(20,325)	(100)	(351,631)	(13,318)	(22,579)	(5)	27,640	438,368	402,754
Belize	1981	71	X	1	X	X	X	(21,014)	X	X	X	X
Costa Rica	1975	83	3	773	4	(11,591)	14	(240)	X	(18)	X	X
Cuba	1990	88	1	(22,802)	X	(19)	X	(159)	X	X	X	X
Dominican Rep	1987	100	42	476	13	53	X	109	X	10	X	X
El Salvador	1987	36	X	36	X	(295,723)	X	X	X	2	(500)	X
Guatemala	1980	89	5	608	X	(38,154)	(545)	(172)	X	X	X	X
Haiti	N/A	N/A	X	X	X	X	X	21	X	X	X	X
Honduras	1985	23	X	37	X	(206)	X	X	X	11,682	X	X
Jamaica	1997	0	X	10	X	X	X	(1,054)	X	X	X	X
Mexico	1991	100	210	6,208	0	10,216	497	X	(5)	79,662	438,866	402,683
Nicaragua	1977	90	X	(8,022)	X	(16,255)	(13,074)	(338)	X	11,244	X	X
Panama	1978	85	4	33	X	53	1	(54)	X	(74,738)	X	X
Trinidad and Tobago	1984	71	X	88	(42)	9	(5)	X	X	X	X	X
SOUTH AMERICA	X	X	(1,065)	(44,941)	(2,520)	(358,813)	(27,051)	1,068	0	(580,056)	(547,191)	(18,465)
Argentina	1981	94	(22)	(18,834)	(5)	3,567	262	917	X	1	(377,055)	(21,579)
Bolivia	1979	63	X	8	X	X	X	X	X	(14,806)	X	X
Brazil	1975	57	(92)	2,861	(160)	- 12	(2)	134	X	(13,505)	1,942	3,119
Chile	1975	74	4	5,431	24	1,703	211	X	X	X	X	X
Colombia	1981	82	2	130	X	(340,840)	(23,227)	19	X	(517,712)	5,000	(1)
Ecuador	1975	74	X	X	0	X	X	28	X	16	X	(2)
Guyana	1977	76	(513)	(13,138)	(748)	(3,221)	(3,025)	X	X	(910)	X	X
Paraguay	1977	71	X	(10)	(2)	2,510	138	(32)	X	(514)	(180,924)	(1)
Peru	1975	74	(300)	(3,269)	X	(5,900)	(65)	X	X	X	X	(1)
Suriname	1981	100	(137)	(11,413)	(1,046)	(16,844)	(1,343)	2	X	X	X	X
Uruguay	1975	65	(2)	(7,600)	X	200	X	X	X	11	X	X
Venezuela	1978	80	(5)	893	(583)	X	X	X	X	(32,637)	3,846	X
OCEANIA	X	X	26	(1,815)	(43)	(2,834)	(151)	1,520	2	(6,253)	(1)	154
Australia	1976	95	26	(422)	X	2	83	1,498	2	(5,819)	(1)	144
Fiji	1997	0	X	(10)	(43)	X	X	X	X	X	(1)	X
New Zealand	1989	100	(22)	(770)	X	X	X	X	X	24	3	12
Papua New Guinea	1976	77	X	(28)	X	X	X	X	X	(458)	(2)	(1)
Solomon Islands	N/A	N/A	X	(593)	X	(2,836)	(234)	X	X	X	X	(1)

Notes: N/A indicates that a country has not signed CITES. a. Indicates the number of annual reports submitted by a country to the CITES Secretariat as a percentage of the number of reports expected since it became a party to the Convention. Values are for reports submitted for years up to 1997. "X" under reporting requirements met indicates that a country ratified CITES after 1997. b. Balance of imports minus exports. Exports are shown as a negative balance (in parentheses). c. World totals reflect the total number of animals traded; in this case, the values represent total imports. d. These countries have signed, but have not ratified the Convention.

Source: World Conservation Monitoring Centre.

	Forest Area									Forests Certified by Forest Stewardship		
	Total Forest			Natural Forest (a)			Plantations (a)			Council-Accredited Certification Bodies		
	Extent	Extent	Average	Extent	Extent	Average	Extent	Extent	Average	Natural	Plantations	Mixed
	1990 (000 ha)	1995 (000 ha)	Annual % Change 1990-95	1990 (000 ha)	1995 (000 ha)	Annual % Change 1990-95	1990 (000 ha)	1995 (000 ha)	Annual % Change 1990-95	Forests (hectares)	(hectares)	Forests (b) (hectares)
WORLD (c)	3,510,728	3,454,382	(0.32)	X	X	X	X	X	X	5,621,629	1,002,230	10,907,593
ASIA (EXCL. MIDDLE EAST)	503,969	490,266	(0.55)	394,877	375,606	(1.00)	55,787	52,821	(1.09)	55,083	76,074	10,000
Armenia	292	334	2.69	X	X	X	X	X	X	0	0	0
Azerbaijan	990	990	0.00	X	X	X	X	X	X	0	0	0
Bangladesh	1,054	1,010	(0.85)	819	700	(3.14)	235	443	12.68	0	0	0
Bhutan	2,803	2,756	(0.34)	2,799	2,748	(0.37)	4	12	21.47	0	0	0
Cambodia	10,649	9,830	(1.60)	10,642	9,823	(1.60)	7	X	X	0	0	0
China (d)	133,756	133,323	(0.06)	101,925	99,523	(0.48)	31,831	21,373	(7.97)	0	0	0
Georgia	2,988	2,988	0.00	X	X	X	X	X	X	0	0	0
India	64,969	65,005	0.01	51,739	50,385	(0.53)	13,230	20,252	8.52	0	0	0
Indonesia	115,213	109,791	(0.96)	109,088	103,666	(1.02)	6,125	4,956	(4.24)	0	62,278	10,000
Japan	25,212	25,146	(0.05)	X	X	X	X	X	X	0	1,070	0
Kazakhstan	9,540	10,504	1.93	X	X	X	X	X	X	0	0	0
Korea, Dem People's Rep	6,170	6,170	0.00	4,700	4,700	0.00	1,470	X	X	0	0	0
Korea, Rep	7,691	7,626	(0.17)	6,291	6,226	(0.21)	0	X	X	0	0	0
Kyrgyzstan	730	730	0.00	X	X	X	X	X	X	0	0	0
Lao People's Dem Rep	13,177	12,435	(1.16)	13,173	12,431	(1.16)	4	22	33.64	0	0	0
Malaysia	17,472	15,471	(2.43)	17,391	15,371	(2.47)	81	170	14.83	55,083	0	0
Mongolia	9,406	9,406	0.00	9,406	9,406	0.00	0	X	X	0	0	0
Myanmar	29,088	27,151	(1.38)	28,853	26,875	(1.42)	235	543	16.75	0	0	0
Nepal	5,096	4,822	(1.11)	5,040	4,766	(1.12)	56	140	18.33	0	0	0
Pakistan	2,023	1,748	(2.92)	1,855	1,580	(3.21)	168	840	32.19	0	0	0
Philippines	8,078	6,766	(3.54)	7,875	6,563	(3.65)	203	590	21.34	0	0	0
Singapore	4	4	0.00	4	4	(1.45)	0	X	X	0	0	0
Sri Lanka	1,897	1,796	(1.09)	1,758	1,657	(1.19)	139	138	(0.14)	0	12,726	0
Tajikistan	410	410	0.00	X	X	X	X	X	X	0	0	0
Thailand	13,277	11,630	(2.65)	12,748	11,101	(2.77)	529	868	9.90	0	0	0
Turkmenistan	3,754	3,754	0.00	X	X	X	X	X	X	0	0	0
Uzbekistan	7,989	9,119	2.65	X	X	X	X	X	X	0	0	0
Viet Nam	9,793	9,117	(1.43)	8,323	7,647	(1.69)	1,470	2,475	10.42	0	0	0
EUROPE	930,726	933,320	0.06	X	X	X	X	X	X	2,187,542	1,050	10,676,900
Albania	1,046	1,046	0.00	X	X	X	X	X	X	0	0	0
Austria	3,877	3,877	0.00	X	X	X	X	X	X	0	0	0
Belarus	7,028	7,372	0.96	X	X	X	X	X	X	0	0	0
Belgium (e)	709	709	0.00	X	X	X	X	X	X	0	0	1,890
Bosnia and Herzegovina	2,710	2,710	0.00	X	X	X	X	X	X	0	0	0
Bulgaria	3,237	3,240	0.02	X	X	X	X	X	X	0	0	0
Croatia	1,825	1,825	0.00	X	X	X	X	X	X	0	0	0
Czech Rep	2,629	2,630	0.01	X	X	X	X	X	X	0	0	10,441
Denmark	417	417	0.00	X	X	X	X	X	X	36	0	0
Estonia	1,913	2,011	1.00	X	X	X	X	X	X	0	0	0
Finland	20,112	20,029	(0.08)	X	X	X	X	X	X	0	0	0
France	14,230	15,034	1.10	X	X	X	X	X	X	0	1,050	0
Germany	10,740	10,740	0.00	X	X	X	X	X	X	2,209	0	82,971
Greece	5,809	6,513	2.29	X	X	X	X	X	X	0	0	0
Hungary	1,675	1,719	0.52	X	X	X	X	X	X	0	0	0
Iceland	11	11	0.00	X	X	X	X	X	X	0	0	0
Ireland	500	570	2.62	X	X	X	X	X	X	0	0	0
Italy	6,467	6,496	0.09	X	X	X	X	X	X	11,000	0	0
Latvia	2,757	2,882	0.89	X	X	X	X	X	X	0	0	0
Lithuania	1,920	1,976	0.57	X	X	X	X	X	X	0	0	0
Macedonia, FYR	989	988	(0.02)	X	X	X	X	X	X	0	0	0
Moldova, Rep	357	357	0.00	X	X	X	X	X	X	0	0	0
Netherlands	334	334	0.00	X	X	X	X	X	X	0	0	69,064
Norway	7,938	8,073	0.34	X	X	X	X	X	X	0	0	0
Poland	8,672	8,732	0.14	X	X	X	X	X	X	2,129,849	0	612,937
Portugal	2,755	2,875	0.85	X	X	X	X	X	X	0	0	0
Romania	6,252	6,246	(0.02)	X	X	X	X	X	X	0	0	0
Russian Federation	763,500	763,500	0.00	X	X	X	X	X	X	0	0	32,712
Slovakia	1,977	1,989	0.12	X	X	X	X	X	X	0	0	0
Slovenia	1,077	1,077	0.00	X	X	X	X	X	X	0	0	0
Spain	8,388	8,388	0.00	X	X	X	X	X	X	0	0	0
Sweden	24,437	24,425	(0.01)	X	X	X	X	X	X	18,012	0	9,026,683
Switzerland	1,130	1,130	0.00	X	X	X	X	X	X	4,252	0	0
Ukraine	9,213	9,240	0.06	X	X	X	X	X	X	0	0	0
United Kingdom	2,326	2,390	0.54	X	X	X	X	X	X	22,184	0	840,202
Yugoslavia	1,769	1,769	0.00	X	X	X	X	X	X	0	0	0
MIDDLE EAST & N. AFRICA	20,412	19,420	(1.00)	9,732	8,741	(2.15)	1,581	1,857	3.22	0	0	0
Afghanistan	1,990	1,398	(7.06)	1,982	1,390	(7.09)	8	X	X	0	0	0
Algeria	1,978	1,861	(1.22)	1,493	1,376	(1.63)	485	972	13.90	0	0	0
Egypt	34	34	0.00	0	0	0.00	34	X	X	0	0	0
Iran, Islamic Rep	1,686	1,544	(1.76)	1,607	1,465	(1.85)	79	X	X	0	0	0
Iraq	83	83	0.00	69	69	0.00	14	X	X	0	0	0
Israel	102	102	0.00	X	X	X	X	X	X	0	0	0
Jordan	51	45	(2.50)	28	22	(4.82)	23	X	X	0	0	0
Kuwait	5	5	0.00	0	0	0.00	5	X	X	0	0	0
Lebanon	78	52	(8.11)	65	39	(10.31)	13	X	X	0	0	0
Libyan Arab Jamahiriya	400	400	0.00	190	190	0.00	210	X	X	0	0	0
Morocco	3,894	3,835	(0.31)	3,573	3,514	(0.33)	321	565	11.31	0	0	0
Oman	0	0	0.00	0	0	0.00	0	X	X	0	0	0
Saudi Arabia	231	222	(0.79)	230	221	(0.79)	1	X	X	0	0	0
Syrian Arab Rep	245	219	(2.24)	118	92	(4.98)	127	X	X	0	0	0
Tunisia	570	555	(0.53)	369	354	(0.80)	201	320	9.30	0	0	0
Turkey	8,856	8,856	0.00	X	X	X	X	X	X	0	0	0
United Arab Emirates	60	60	0.00	0	0	0.00	60	X	X	0	0	0
Yemen	9	9	0.00	9	9	0.00	0	X	X	0	0	0

Data Table FG.1 continued

	Forest Area									Forests Certified by Forest Stewardship Council-Accredited Certification Bodies		
	Total Forest			Natural Forest (a)			Plantations (a)			Natural Forests (hectares)	Plantations (hectares)	Mixed Forests (b) (hectares)
	Extent 1990 (000 ha)	Extent 1995 (000 ha)	Average Annual % Change 1990-95	Extent 1990 (000 ha)	Extent 1995 (000 ha)	Average Annual % Change 1990-95	Extent 1990 (000 ha)	Extent 1995 (000 ha)	Average Annual % Change 1990-95			
SUB-SAHARAN AFRICA	532,001	513,551	(0.71)	528,602	510,021	(0.72)	3,168	4,955	8.94	581,571	323,516	1,458
Angola	23,285	22,200	(0.95)	23,265	22,080	(1.05)	120	160	5.75	0	0	0
Benin	4,923	4,625	(1.25)	4,909	4,611	(1.25)	14	30	15.24	0	0	0
Botswana	14,271	13,917	(0.50)	14,270	13,916	(0.50)	1	X	X	0	0	0
Burkina Faso	4,431	4,271	(0.74)	4,411	4,251	(0.74)	20	28	6.73	0	0	0
Burundi	324	317	(0.44)	232	225	(0.61)	92	120	5.31	0	0	0
Cameroon	20,244	19,598	(0.65)	20,228	19,582	(0.65)	16	23	7.26	0	0	0
Central African Rep	30,571	29,930	(0.42)	30,565	29,924	(0.42)	6	X	X	0	0	0
Chad	11,496	11,025	(0.84)	11,492	11,021	(0.84)	4	8	13.86	0	0	0
Congo	19,745	19,537	(0.21)	19,708	19,500	(0.21)	37	64	10.96	0	0	0
Congo, Dem Rep	112,946	109,245	(0.67)	112,904	109,203	(0.67)	42	60	7.13	0	0	0
Côte d'Ivoire	5,623	5,469	(0.56)	5,560	5,403	(0.57)	63	98	8.84	0	0	0
Equatorial Guinea	1,829	1,781	(0.53)	1,826	1,778	(0.53)	3	X	X	0	0	0
Eritrea	282	282	0.00	233	233	0.00	X	X	X	0	0	0
Ethiopia (f)	13,891	13,579	(0.45)	13,751	13,439	(0.46)	189	220	3.04	0	0	0
Gabon	18,314	17,859	(0.50)	18,293	17,838	(0.50)	21	30	7.13	0	0	0
Gambia	95	91	(0.86)	94	90	(0.91)	1	2	8.11	0	0	0
Ghana	9,608	9,022	(1.26)	9,555	8,969	(1.27)	53	19	(20.52)	0	0	0
Guinea	6,741	6,367	(1.14)	6,737	6,363	(1.14)	4	11	19.49	0	0	0
Guinea-Bissau	2,361	2,309	(0.45)	2,360	2,308	(0.44)	1	X	X	0	0	0
Kenya	1,309	1,292	(0.26)	1,191	1,174	(0.28)	118	240	14.20	0	0	0
Lesotho	6	6	0.00	0	0	0.00	7	6	0.00	0	0	0
Liberia	4,641	4,507	(0.59)	4,635	4,501	(0.58)	6	8	5.75	0	0	0
Madagascar	15,756	15,106	(0.84)	15,539	14,889	(0.85)	217	335	8.68	0	0	0
Malawi	3,612	3,339	(1.57)	3,486	3,213	(1.63)	126	122	(0.65)	0	0	0
Mali	12,154	11,585	(0.96)	12,140	11,571	(0.96)	14	40	21.00	0	0	0
Mauritania	556	556	0.00	554	554	0.00	2	8	27.73	0	0	0
Mozambique	17,443	16,862	(0.68)	17,415	16,834	(0.68)	28	45	9.49	0	0	0
Namibia	12,584	12,374	(0.34)	12,584	12,374	(0.34)	0	1	X	54,420	0	0
Niger	2,562	2,562	0.00	2,550	2,550	0.00	12	60	32.19	0	0	0
Nigeria	14,387	13,780	(0.86)	14,236	13,629	(0.87)	151	250	10.08	0	0	0
Rwanda	252	250	(0.16)	164	162	(0.25)	88	247	20.64	0	0	0
Senegal	7,629	7,381	(0.66)	7,517	7,269	(0.67)	112	216	13.14	0	0	0
Sierra Leone	1,522	1,309	(3.02)	1,516	1,303	(3.03)	6	8	5.75	0	0	0
Somalia	760	754	(0.16)	756	750	(0.15)	4	6	8.11	0	0	0
South Africa	8,574	8,499	(0.18)	7,279	7,204	(0.21)	965	1,429	7.85	502,301	275,862	1,458
Sudan	43,376	41,613	(0.83)	43,173	41,410	(0.83)	203	425	14.76	0	0	0
Tanzania, United Rep	34,123	32,510	(0.97)	33,969	32,356	(0.97)	154	200	5.23	0	0	0
Togo	1,338	1,245	(1.44)	1,317	1,224	(1.47)	17	34	14.04	0	0	0
Uganda	6,400	6,104	(0.95)	6,380	6,084	(0.95)	20	26	5.25	0	0	0
Zambia	32,720	31,398	(0.82)	32,677	31,355	(0.83)	48	44	(1.92)	0	0	0
Zimbabwe	8,960	8,710	(0.57)	8,876	8,626	(0.57)	84	110	5.39	24,850	47,654	0
NORTH AMERICA	453,270	457,086	0.17	X	X	X	X	X	X	1,782,470	0	35,477
Canada	243,698	244,571	0.07	X	X	X	X	X	X	212,189	0	0
United States	209,572	212,515	0.28	X	X	X	X	X	X	1,570,281	0	35,477
C. AMERICA & CARIBBEAN	84,609	79,425	(1.26)	84,124	78,940	(1.27)	485	813	10.34	295,037	14,298	115,758
Belize	1,995	1,962	(0.33)	1,993	1,960	(0.34)	2	3	4.46	95,800	0	0
Costa Rica	1,455	1,248	(3.07)	1,427	1,220	(3.13)	28	129	30.49	8,246	14,275	17,632
Cuba	1,960	1,842	(1.24)	1,715	1,597	(1.42)	245	470	13.03	0	0	0
Dominican Rep	1,714	1,582	(1.60)	1,707	1,575	(1.61)	7	20	21.00	0	0	0
El Salvador	124	105	(3.33)	120	101	(3.51)	4	8	13.86	0	0	0
Guatemala	4,253	3,841	(2.04)	4,225	3,813	(2.05)	28	68	17.63	100,026	0	0
Haiti	25	21	(3.49)	17	13	(5.25)	8	12	8.11	0	0	0
Honduras	4,626	4,115	(2.34)	4,623	4,112	(2.34)	3	40	51.81	19,876	0	0
Jamaica	254	175	(7.45)	239	160	(8.03)	15	6	(17.67)	0	0	0
Mexico	57,927	55,387	(0.90)	57,818	55,278	(0.90)	109	X	X	71,089	0	98,126
Nicaragua	6,314	5,560	(2.54)	6,300	5,546	(2.55)	14	23	9.93	0	0	0
Panama	3,118	2,800	(2.15)	3,112	2,794	(2.16)	6	16	19.87	0	23	0
Trinidad and Tobago	174	161	(1.55)	161	148	(1.65)	13	18	6.51	0	0	0
SOUTH AMERICA	894,466	870,594	(0.54)	887,187	863,315	(0.55)	7,279	9,150	4.58	710,704	584,987	30,000
Argentina	34,389	33,942	(0.26)	33,842	33,395	(0.27)	547	830	8.34	0	0	0
Bolivia	51,217	48,310	(1.17)	51,189	48,282	(1.17)	28	20	(6.73)	630,133	0	30,000
Brazil	563,911	551,139	(0.46)	559,011	546,239	(0.46)	4,900	4,805	(0.39)	80,571	584,987	0
Chile	8,038	7,892	(0.37)	7,023	6,877	(0.42)	1,015	1,747	10.86	0	0	0
Colombia	54,299	52,988	(0.49)	54,173	52,862	(0.49)	126	300	17.35	0	0	0
Ecuador	12,082	11,137	(1.63)	12,037	11,092	(1.64)	45	120	19.62	0	0	0
Guyana	18,620	18,577	(0.05)	18,612	18,569	(0.05)	8	12	8.11	0	0	0
Paraguay	13,160	11,527	(2.65)	13,151	11,518	(2.65)	9	18	13.86	0	0	0
Peru	68,646	67,562	(0.32)	68,462	67,378	(0.32)	184	349	12.80	0	0	0
Suriname	14,782	14,721	(0.08)	14,774	14,713	(0.08)	8	12	8.11	0	0	0
Uruguay	816	814	(0.05)	660	658	(0.05)	156	348	16.05	0	0	0
Venezuela	46,512	43,995	(1.11)	46,259	43,742	(1.12)	253	589	16.90	0	0	0
OCEANIA (g)	91,143	90,689	(0.10)	42,501	41,746	(0.36)	X	1,250	X	9,222	2,305	38,000
Australia	40,823	40,908	0.04	X	X	X	X	1,068	X	0	0	0
Fiji	853	835	(0.43)	775	757	(0.47)	78	103	5.56	0	0	0
New Zealand	7,667	7,884	0.56	X	X	X	X	X	X	0	2,305	0
Papua New Guinea	37,605	36,939	(0.36)	37,575	36,909	(0.36)	30	50	10.22	4,310	0	0
Solomon Islands	2,412	2,389	(0.19)	2,394	2,371	(0.19)	16	29	11.89	4,912	0	38,000
DEVELOPING	2,017,529	1,952,577	(0.65)	1,939,744	1,871,165	(0.72)	67,484	68,350	0.25	1,149,316	721,943	193,758
DEVELOPED	1,493,067	1,501,774	0.12	X	X	X	X	X	X	4,472,313	280,287	10,713,835

Notes: Negative numbers are shown in parentheses. a. With the exception of South Africa and Australia, forest areas in developed countries are not broken down into the subcategories of natural forests and plantations due to the difficulty in distinguishing the two in many countries. b. Includes areas with natural forests and plantations, areas with seminatural forests, and areas with mixed seminatural forests and plantations. c. World totals have been excluded because data for natural forests and plantations are not available for developed nations. d. Includes Taiwan, Province of China. e. Total forest figures for Belgium include Luxembourg. f. Plantation figures are for the Former People's Democratic Republic of Ethiopia, which included Eritrea. g. Plantation figures include data for Australia even though it is a developed nation.

Sources: Food and Agriculture Organization of the United Nations and Forest Stewardship Council

	Land Area (000 ha)	Closed Forests				Forest Ecosystems (1990s)						Number of Tree Species Threatened 1990s
		Original Forest as a Percent of Land Area (a)	Forests as a Percent of Original Forest		Percent Frontier Forest (d) Threatened 1996	Tropical Forests		Nontropical Forests		Sparse Trees and Parkland		
			Current Forests (b)	Frontier Forests (c)		Area (000 ha)	Percent Protected	Area (000 ha)	Percent Protected	Area (000 ha)	Percent Protected	
WORLD	13,048,407	47.7	53.4	21.7	39.5	1,407,649	11.7	1,823,787	6.0	541,616	5.5	5,904 e
ASIA (EXCL. MIDDLE EAST)	2,406,823	X	X	X	X	210,720	16.4	132,065	5.3	42,384	7.0	X
Armenia	2,820	45.6	21.1	0.0	0.0	0	0.0	355	10.1	0	0.0	0
Azerbaijan	8,660	32.0	32.0	0.0	0.0	0	0.0	1,133	0.0	0	0.0	0
Bangladesh	13,017	100.0	7.9	3.8	100.0	862	3.7	0	0.0	0	0.0	12
Bhutan	4,700	67.3	61.8	24.0	100.0	966	22.9	1,129	37.6	0	0.0	4
Cambodia	17,652	100.0	65.1	10.3	100.0	11,516	25.6	0	0.0	0	0.0	30
China	932,641	51.8	21.6	1.8	92.8	109	13.0	82,710	3.9	26,715	4.7	190 f
Georgia	6,970	76.6	57.3	0.0	0.0	0	0.0	3,158	0.0	0	0.0	1
India	297,319	79.0	20.5	1.3	57.2	44,450	8.9	9,260	8.3	0	0.0	266
Indonesia	181,157	100.0	64.6	28.5	53.8	88,744	20.9	0	0.0	0	0.0	426
Japan	37,652	91.4	58.2	0.0	0.0	0	0.0	5,677	9.7	0	0.0	11
Kazakhstan	267,073	2.6	22.9	2.9	100.0	0	0.0	2,638	9.6	0	0.0	X
Korea, Dem People's Rep	12,041	97.3	38.7	0.0	0.0	0	0.0	3,967	1.1	506	0.0	3
Korea, Rep	9,873	88.5	16.5	0.0	0.0	0	0.0	1,426	3.4	0	0.0	0
Kyrgyzstan	19,180	8.4	14.0	0.0	0.0	0	0.0	785	0.2	0	0.0	1
Lao People's Dem Rep	23,080	99.9	30.0	2.1	100.0	3,639	23.0	849	5.0	0	0.0	20
Malaysia	32,855	99.5	63.8	14.5	48.5	13,007	11.7	0	0.0	0	0.0	737
Mongolia	156,650	22.5	49.6	8.2	0.0	0	0.0	2,636	25.2	14,697	11.2	0
Myanmar	65,755	100.0	40.6	0.0	0.0	20,661	0.8	9,574	2.0	0	0.0	44
Nepal	14,300	83.6	22.4	0.0	0.0	1,162	18.8	2,660	20.7	0	0.0	3
Pakistan	77,088	44.8	5.8	0.0	0.0	807	0.6	2,083	4.7	0	0.0	2
Philippines	29,817	95.3	6.0	0.0	0.0	2,402	5.2	0	0.0	0	0.0	209
Singapore	61	78.8	3.1	0.0	0.0	X	X	X	X	X	X	61
Sri Lanka	6,463	94.7	18.1	11.9	76.2	1,581	27.6	0	0.0	466	19.4	294
Tajikistan	14,060	50.7	4.2	0.0	0.0	X	X	X	X	X	X	1
Thailand	51,089	100.0	22.2	4.9	100.0	16,237	31.2	361	11.3	0	0.0	91
Turkmenistan	46,993	7.9	4.1	0.0	0.0	0	0.0	216	0.7	0	0.0	X
Uzbekistan	41,424	2.8	10.2	0.0	0.0	0	0.0	231	0.0	0	0.0	0
Viet Nam	32,549	99.7	17.2	1.9	100.0	4,218	10.3	723	8.8	0	0.0	132
EUROPE	2,263,394	72.7	58.4	21.3	18.7	0	X	991,346	3.0	10,350	1.0	X
Albania	2,740	92.5	37.3	0.0	0.0	0	0.0	1,066	1.2	0	0.0	0
Austria	8,273	95.1	52.8	0.0	0.0	0	0.0	3,593	20.9	0	0.0	X
Belarus	20,748	91.1	27.2	0.0	0.0	0	0.0	6,280	6.5	0	0.0	X
Belgium	3,023	95.2	21.0	0.0	0.0	0	0.0	687	7.8	0	0.0	X
Bosnia and Herzegovina	5,100	X	X	X	X	0	0.0	2,303	1.0	0	0.0	1
Bulgaria	11,055	92.3	31.7	0.0	0.0	0	0.0	3,787	5.9	0	0.0	0
Croatia	5,592	X	X	X	X	0	0.0	1,391	9.9	0	0.0	1
Czech Rep	7,728	X	X	X	X	0	0.0	2,481	27.5	0	0.0	X
Denmark	4,243	88.5	0.8	0.0	0.0	0	0.0	459	4.2	0	0.0	1
Estonia	4,227	96.0	29.4	0.0	0.0	0	0.0	1,524	6.7	0	0.0	X
Finland	30,459	100.0	82.3	1.1	100.0	0	0.0	25,309	5.8	0	0.0	X
France	55,010	95.3	16.5	0.0	0.0	0	0.0	10,831	13.7	0	0.0	1
Germany	34,927	92.6	26.3	0.0	0.0	0	0.0	10,401	24.8	0	0.0	8
Greece	12,890	84.3	17.0	0.0	0.0	0	0.0	4,423	1.7	0	0.0	2
Hungary	9,234	50.4	8.2	0.0	0.0	0	0.0	777	26.1	0	0.0	X
Iceland	10,025	43.7	0.0	0.0	0.0	X	X	X	X	X	X	X
Ireland	6,889	64.4	3.6	0.0	0.0	0	0.0	457	2.1	0	0.0	1
Italy	29,406	94.5	20.4	0.0	0.0	0	0.0	6,757	6.1	0	0.0	2
Latvia	6,205	100.0	19.8	0.0	0.0	0	0.0	1,624	10.1	0	0.0	X
Lithuania	6,480	99.3	16.0	0.0	0.0	0	0.0	1,509	10.3	0	0.0	X
Macedonia, FYR	2,543	X	X	X	X	0	0.0	1,091	9.9	0	0.0	X
Moldova, Rep	3,297	48.3	3.7	0.0	0.0	0	0.0	143	5.4	0	0.0	X
Netherlands	3,392	46.2	4.8	0.0	0.0	0	0.0	235	7.4	0	0.0	X
Norway	30,683	33.8	90.4	0.0	0.0	0	0.0	8,139	2.0	0	0.0	X
Poland	30,442	95.6	22.2	0.0	0.0	0	0.0	8,939	12.9	0	0.0	2
Portugal	9,150	91.2	9.4	0.0	0.0	0	0.0	2,661	5.6	0	0.0	13
Romania	23,034	75.2	41.5	0.0	0.0	0	0.0	8,137	2.5	0	0.0	2
Russian Federation	1,688,850	69.6	68.7	29.3	18.6	0	0.0	815,551	1.8	10,350	1.0	2
Slovakia	4,808	X	X	X	X	0	0.0	2,308	29.6	0	0.0	X
Slovenia	2,012	X	X	X	X	0	0.0	696	8.9	0	0.0	0
Spain	49,944	94.2	15.1	0.0	0.0	0	0.0	14,024	10.8	0	0.0	21
Sweden	41,162	93.3	86.0	2.9	100.0	0	0.0	29,364	1.6	0	0.0	1
Switzerland	3,955	85.5	44.8	0.0	0.0	0	0.0	1,309	12.6	0	0.0	X
Ukraine	57,935	45.7	20.4	0.0	0.0	0	0.0	7,046	1.6	0	0.0	2
United Kingdom	24,160	77.5	6.0	0.0	0.0	0	0.0	2,303	20.7	0	0.0	10
Yugoslavia	10,200	X	X	X	X	0	0.0	3,664	3.4	0	0.0	0
MIDDLE EAST & N. AFRICA	1,253,551	X	X	X	X	134	0.0	17,950	3.3	1	76.9	X
Afghanistan	65,209	48.1	6.5	0.0	0.0	0	0.0	2,076	0.0	0	0.0	1
Algeria	238,174	4.6	12.0	0.0	0.0	0	0.0	2,694	3.7	1	83.3	2
Egypt	99,545	0.6	0.0	0.0	0.0	134	0.0	4	0.0	0	0.0	2
Iran, Islamic Rep	162,200	43.1	3.3	0.0	0.0	0	0.0	2,348	12.0	0	0.0	1
Iraq	43,737	13.4	0.0	0.0	0.0	X	X	X	X	X	X	0
Israel	2,062	86.6	0.0	0.0	0.0	X	X	X	X	X	X	0
Jordan	8,893	13.1	0.0	0.0	0.0	X	X	X	X	X	X	0
Kuwait	1,782	0.0	0.0	0.0	0.0	X	X	X	X	X	X	0
Lebanon	1,023	73.7	0.7	0.0	0.0	0	0.0	36	0.0	0	0.0	0
Libyan Arab Jamahiriya	175,954	0.8	0.0	0.0	0.0	0	0.0	53	0.0	0	0.0	1
Morocco	44,630	21.6	7.3	0.0	0.0	0	0.0	1,862	2.6	0	0.0	5
Oman	21,246	0.0	0.0	0.0	0.0	X	X	X	X	X	X	7
Saudi Arabia	214,969	0.0	0.0	0.0	0.0	X	X	X	X	X	X	3
Syrian Arab Rep	18,378	19.2	0.0	0.0	0.0	0	0.0	47	0.0	0	0.0	0
Tunisia	15,536	18.1	4.7	0.0	0.0	0	0.0	300	2.2	0	0.0	0
Turkey	76,963	66.4	11.3	0.0	0.0	0	0.0	8,390	1.2	0	0.0	5
United Arab Emirates	8,360	0.0	0.0	0.0	0.0	X	X	X	X	X	X	X
Yemen	52,797	0.0	0.0	0.0	0.0	X	X	X	X	X	X	56

Data Table FG.2 continued

	Land Area (000 ha)	Closed Forests				Forest Ecosystems (1990s)						Number of Tree Species Threatened 1990s
		Original Forest as a Percent of Land Area (a)	Forests as a Percent of Original Forest		Percent Frontier Forest (d) Threatened 1996	Tropical Forests		Nontropical Forests		Sparse Trees and Parkland		
			Current Forests (b)	Frontier Forests (c)		Area (000 ha)	Percent Protected	Area (000 ha)	Percent Protected	Area (000 ha)	Percent Protected	
SUB-SAHARAN AFRICA	2,363,090	X	X	X	X	448,063	9.1	52	26.4	69,709	11.3	X
Angola	124,670	19.8	15.3	0.0	0.0	37,564	2.6	0	0.0	0	0.0	X
Benin	11,062	15.5	3.5	0.0	0.0	1,516	18.2	0	0.0	585	2.3	12
Botswana	56,673	2.1	100.0	0.0	0.0	12,123	19.9	0	0.0	0	0.0	0
Burkina Faso	27,360	0.0	0.0	0.0	0.0	0	0.0	0	0.0	5,667	15.9	2
Burundi	2,568	46.3	3.5	0.0	0.0	219	18.2	0	0.0	139	2.6	1
Cameroon	46,540	80.4	42.4	7.9	97.4	20,009	6.0	0	0.0	2,416	21.8	104
Central African Rep	62,298	51.8	15.9	4.4	100.0	17,101	20.1	0	0.0	1,451	47.7	9
Chad	125,920	0.0	0.0	0.0	0.0	3,516	3.6	0	0.0	2,857	0.7	2
Congo	34,150	100.0	67.8	28.7	64.6	24,321	4.4	0	0.0	0	0.0	X
Congo, Dem Rep	226,705	82.5	60.4	15.6	70.4	135,071	6.6	0	0.0	172	40.0	58
Côte d'Ivoire	31,800	74.9	9.9	2.2	100.0	2,702	22.8	0	0.0	625	18.4	104
Equatorial Guinea	2,805	95.6	38.4	0.0	0.0	1,749	0.0	0	0.0	0	0.0	15
Eritrea	10,100	X	X	X	X	1	0.0	0	0.0	0	0.0	4
Ethiopia (g)	100,000	24.5	17.3	0.0	0.0	11,937	18.8	0	0.0	4,804	21.4	24
Gabon	25,767	100.0	90.4	32.4	100.0	21,481	3.6	0	0.0	0	0.0	70
Gambia	1,000	39.1	61.9	0.0	0.0	188	5.1	0	0.0	244	2.5	3
Ghana	22,754	65.9	8.6	0.0	0.0	1,694	7.1	0	0.0	336	16.7	117
Guinea	24,572	75.6	5.0	0.0	0.0	3,073	1.1	0	0.0	2,723	1.2	21
Guinea-Bissau	2,812	100.0	33.7	0.0	0.0	1,141	0.0	0	0.0	550	0.0	4
Kenya	56,914	16.8	18.5	0.0	0.0	3,423	8.3	0	0.0	2,754	2.8	125
Lesotho	3,035	2.4	0.0	0.0	0.0	89	8.7	0	0.0	0	0.0	X
Liberia	9,632	99.6	44.2	0.0	0.0	3,149	2.9	0	0.0	1	0.0	47
Madagascar	58,154	92.6	13.1	0.0	0.0	6,940	5.5	0	0.0	0	0.0	164
Malawi	9,408	12.2	0.0	0.0	0.0	3,830	8.5	0	0.0	0	0.0	23
Mali	122,019	0.0	0.0	0.0	0.0	6,132	2.3	0	0.0	336	0.4	6
Mauritania	102,522	0.0	0.0	0.0	0.0	X	X	X	X	X	X	X
Mozambique	78,409	33.2	13.6	0.0	0.0	20,863	7.5	0	0.0	14,414	6.6	43
Namibia	82,329	0.0	95.3	0.0	0.0	3,436	10.6	0	0.0	0	0.0	4
Niger	126,670	0.0	0.0	0.0	0.0	27	15.6	0	0.0	0	0.0	2
Nigeria	91,077	45.1	10.7	0.6	100.0	11,634	7.4	0	0.0	10,588	4.0	112
Rwanda	2,467	36.1	16.1	0.0	0.0	291	77.0	0	0.0	162	1.8	X
Senegal	19,253	14.2	16.0	0.0	0.0	2,076	7.0	0	0.0	8,816	13.1	7
Sierra Leone	7,162	100.0	9.7	0.0	0.0	260	20.3	0	0.0	104	0.0	44
Somalia	62,734	4.2	0.0	0.0	0.0	11,800	1.1	0	0.0	1,530	0.9	19
South Africa	122,104	12.8	0.2	0.0	0.0	10,333	5.2	52	26.4	0	0.0	37
Sudan	237,600	1.2	0.0	0.0	0.0	12,288	12.3	0	0.0	5,870	8.9	17
Tanzania, United Rep	88,359	22.4	9.1	0.0	0.0	14,356	15.8	0	0.0	583	3.3	317
Togo	5,439	32.9	7.0	0.0	0.0	224	2.6	0	0.0	91	9.1	9
Uganda	19,965	70.0	4.4	0.0	0.0	3,772	17.0	0	0.0	1,850	65.2	32
Zambia	74,339	7.1	70.1	0.0	0.0	21,989	31.9	0	0.0	39	14.1	11
Zimbabwe	38,685	7.0	67.3	0.0	0.0	15,397	12.2	0	0.0	0	0.0	18
NORTH AMERICA	1,838,009	59.7	77.3	34.1	26.2	443	6.7	683,700	8.9	148,827	5.7	X
Canada	922,097	65.8	91.2	56.5	20.9	0	0.0	404,313	7.9	143,573	5.6	1
United States	915,912	53.5	60.2	6.3	84.7	443	6.7	279,386	10.4	5,254	9.0	198
C. AMERICA & CARIBBEAN	264,711	67.2	54.5	9.7	87.0	70,812	12.0	21,293	3.1	4	1.2	X
Belize	2,280	91.8	95.7	35.5	66.1	1,440	43.6	0	0.0	0	0.0	28
Costa Rica	5,106	98.4	34.9	9.5	100.0	1,464	44.8	0	0.0	0	0.0	114
Cuba	10,982	90.4	28.8	0.0	0.0	1,761	15.3	0	0.0	0	0.0	169
Dominican Rep	4,838	97.7	25.1	0.0	0.0	1,171	16.9	0	0.0	0	0.0	32
El Salvador	2,072	99.4	9.9	0.0	0.0	111	4.5	0	0.0	0	0.0	28
Guatemala	10,843	98.7	46.2	2.2	100.0	3,862	31.9	0	0.0	0	0.0	83
Haiti	2,756	93.2	0.8	0.0	0.0	64	2.0	0	0.0	0	0.0	32
Honduras	11,189	99.5	51.6	16.4	100.0	5,273	18.3	0	0.0	0	0.0	116
Jamaica	1,083	96.7	35.6	0.0	0.0	399	20.5	0	0.0	0	0.0	229
Mexico	190,869	55.7	63.4	8.1	77.0	45,765	4.3	21,293	3.1	0	0.0	186
Nicaragua	12,140	100.0	44.3	21.6	100.0	5,322	24.7	0	0.0	0	0.0	42
Panama	7,443	97.2	62.0	34.8	100.0	3,744	30.9	0	0.0	0	0.0	208
Trinidad and Tobago	513	93.5	35.5	0.0	0.0	124	7.0	0	0.0	0	0.0	1
SOUTH AMERICA	1,751,708	55.6	69.1	45.6	54.0	620,514	12.2	39,178	15.8	168,216	2.4	X
Argentina	273,669	5.5	59.5	6.3	99.9	4,360	5.5	19,094	10.1	6,392	9.4	42
Bolivia	108,438	53.9	77.2	43.6	96.9	68,638	12.1	0	0.0	0	0.0	79
Brazil	845,651	64.0	66.4	42.2	47.8	301,273	6.9	2,613	6.9	137,494	1.3	351
Chile	74,880	39.7	40.6	54.5	76.0	0	0.0	14,526	27.1	263	0.6	40
Colombia	103,870	92.2	53.5	36.4	18.7	53,186	10.8	0	0.0	0	0.0	227
Ecuador	27,684	78.8	66.4	36.9	99.5	13,508	23.9	0	0.0	755	46.9	175
Guyana	19,685	98.9	97.4	81.8	41.1	17,844	1.3	0	0.0	0	0.0	22
Paraguay	39,730	21.9	44.5	0.0	0.0	9,290	2.6	2,848	4.9	16,253	2.7	13
Peru	128,000	74.4	86.6	56.7	99.6	75,636	5.1	0	0.0	2,660	3.0	281
Suriname	15,600	91.7	95.6	92.2	21.7	13,219	4.0	0	0.0	0	0.0	27
Uruguay	17,481	1.6	0.0	0.0	0.0	2	0.0	97	1.0	325	1.6	0
Venezuela	88,205	74.7	83.6	59.3	37.3	55,615	59.0	0	0.0	3,997	18.6	70
OCEANIA (h)	848,870	16.9	64.9	22.3	76.3	53,560	9.1	27,088	18.7	102,126	6.1	X
Australia	768,230	9.3	64.3	17.8	62.8	14,088	7.3	22,877	14.1	101,485	6.1	34
Fiji	1,827	84.1	49.9	0.0	0.0	641	1.0	0	0.0	0	0.0	67
New Zealand	26,799	84.7	29.2	8.9	100.0	0	0.0	4,212	43.8	0	0.0	21
Papua New Guinea	45,286	96.0	85.4	39.6	83.5	35,791	10.7	0	0.0	0	0.0	165
Solomon Islands	2,799	82.1	93.9	0.0	0.0	2,669	0.0	0	0.0	0	0.0	18
ASIA	3,085,414	49.1	28.2	5.3	63.1	210,720	16.4	145,101	5.1	42,384	7.0	X
AFRICA	2,963,568	22.9	33.9	7.8	76.8	448,197	9.1	8,249	2.0	69,710	11.3	X

Notes: a. Original forest refers to estimated forest cover about 8,000 years ago assuming current climatic conditions. b. Includes frontier and nonfrontier forests. These represent estimated closed forests within the last 10 years or so. Only closed moist forests are depicted for Africa and Asia. Woodlands and shrublands are excluded. c. Frontier forests are relatively undisturbed large, intact natural forest ecosystems. d. Threatened frontier forests are areas where ongoing or planned human activities are likely to result in significant loss of ecosystem integrity (i.e., declines or local extinctions of species, changes in age structure of forests, etc.). e. The world total comes from: S. Oldfield, C. Lusty and A. MacKinnon (eds.), World Conservation Press, 1998 (see sources). f. China includes Hong Kong, SAR. g. Values for closed forests are for the Former People's Democratic Republic of Ethiopia, which included Eritrea. h. Includes only Australia, Papua New Guinea, and New Zealand.

Sources: World Conservation Monitoring Centre, World Resources Institute, and Food and Agriculture Organization of the United Nations

	Average Annual Roundwood Production						Average Annual Forest Products Production				Trade in Forest Products (a)		
	Total Roundwood		Wood Fuel		Industrial Roundwood		Wood-Based Panels		Paper and Paperboard		Import	Export	Percent of Total Exports
	Cubic Meters (000)	Percent Change Since 1986-88	Cubic Meters (000)	Percent Change Since 1986-88	Cubic Meters (000)	Percent Change Since 1986-88	Cubic Meters (000)	Percent Change Since 1986-88	Metric Tons (000)	Percent Change Since 1986-88	Value (million US\$)	Value (million US\$)	
	1996-98	1986-88	1996-98	1986-88	1996-98	1986-88	1996-98	1986-88	1996-98	1986-88	1996-98	1996-98	1997
WORLD (b)	3,261,621	1.5	1,742,064	10.4	1,522,116	(7.1)	151,390	24	288,285	34	142,935.0	135,313.0	1.97
ASIA (EXCL. MIDDLE EAST) (b,c)	1,111,958	X	863,316	X	268,470	X	39,057	X	82,277	X	37,114.7	16,434.0	X
Armenia (c)	X	X	X	X	19,828	X	X	X	X	X	1.2	0.1	0.02
Azerbaijan (c)	X	X	X	X	X	X	X	X	X	X	21.6	0.4	0.03
Bangladesh	32,505	16.5	31,894	18.3	610	(35.1)	9	(9)	69	(39)	93.3	5.0	0.10
Bhutan	1,655	16.0	1,610	27.2	45	(72.1)	13	1,850	0	0	2.0	0.1	0.08
Cambodia	7,852	37.4	6,812	32.3	1,040	83.4	51	2,103	0	0	5.6	130.3	14.53
China (d)	305,787	10.9	199,669	12.4	106,118	8.1	12,015	257	31,670	123	11,792.2	3,600.4	0.83
Georgia (c)	X	X	X	X	X	X	10	X	X	X	X	X	0.00
India	294,905	19.0	269,841	20.6	25,064	3.9	348	(43)	3,103	65	747.6	32.9	0.07
Indonesia	198,345	18.8	154,770	17.1	43,575	25.0	9,803	41	4,810	502	903.8	4,583.5	7.25
Japan	21,878	(30.1)	768	112.3	21,110	(31.8)	6,765	(27)	30,305	33	15,499.1	1,521.2	0.32
Kazakhstan (c)	X	X	315	X	X	X	X	X	X	X	51.5	0.7	0.01
Korea, Dem People's Rep	6,233	40.2	5,000	30.0	1,233	105.6	X	X	80	0	14.7	21.5	X
Korea, Rep	1,622	(69.1)	394	(89.9)	1,228	(8.3)	2,172	58	7,921	148	3,422.8	1,321.4	0.80
Kyrgyzstan (c)	X	X	X	X	X	X	X	X	X	X	9.8	0.4	0.06
Lao People's Dem Rep	4,522	41.5	3,803	31.7	719	133.3	122	1,503	0	0	1.8	59.4	14.23
Malaysia	37,081	(11.4)	7,410	26.8	29,671	(17.6)	6,315	351	715	640	929.4	3,615.3	3.89
Mongolia	631	(69.1)	186	(78.8)	445	(61.7)	2	(54)	0	0	2.5	16.5	3.28
Myanmar	21,995	11.5	18,749	12.5	3,246	6.0	8	(45)	30	127	11.2	197.4	13.72
Nepal	20,993	27.7	20,373	28.3	620	10.7	30	X	13	550	1.4	1.0	0.08
Pakistan	31,528	41.0	29,312	38.4	2,217	86.0	109	36	487	352	144.8	0.0	0.00
Philippines	41,676	13.8	38,233	25.1	3,443	(43.1)	486	(18)	613	107	636.8	65.6	0.16
Singapore	0	0.0	0	0.0	0	0.0	355	(27)	87	770	1,110.0	607.9	0.39
Sri Lanka	10,408	10.0	9,708	10.5	700	3.0	15	51	25	(5)	81.1	2.6	0.05
Tajikistan (c)	X	X	X	X	X	X	X	X	X	X	1.8	0.0	0.00
Thailand	35,960	6.0	33,117	12.7	2,843	(37.5)	421	105	2,225	373	1,480.3	597.6	0.83
Turkmenistan (c)	X	X	X	X	X	X	X	X	X	X	2.6	0.3	0.04
Uzbekistan (c)	X	X	X	X	X	X	X	X	X	X	20.2	0.1	0.00
Viet Nam	35,712	16.1	31,219	22.1	4,493	(13.3)	39	(3)	125	108	104.3	46.1	0.40
EUROPE (b,c)	498,720	X	92,609	X	394,704	X	48,023	X	87,019	X	63,934.6	64,797.8	X
Albania	409	(82.1)	346	(78.5)	64	(90.7)	16	35	44	211	13.1	3.8	1.70
Austria	14,989	6.3	3,465	34.0	117	1.7	2,079	43	3,826	59	2,131.3	4,060.5	4.76
Belarus (c)	17,012	X	809	X	16,203	X	386	X	131	X	52.2	74.0	0.89
Belgium (e)	4,102	11.2	533	(2.9)	3,568	13.6	2,853	36	1,432	43	3,546.3	2,570.1	1.39
Bosnia and Herzegovina (c)	X	X	X	X	40	X	34	X	X	X	15.3	42.9	X
Bulgaria	3,096	(19.0)	1,181	3.8	1,915	(28.6)	233	(58)	150	(68)	78.5	69.9	1.12
Croatia (c)	2,997	X	982	X	2,015	X	80	X	367	X	323.9	248.6	3.03
Czech Rep (c)	13,291	X	646	X	12,645	X	939	X	751	X	612.1	842.4	2.82
Denmark	2,180	(0.9)	485	7.9	1,695	(3.2)	425	29	376	17	1,891.5	442.3	0.69
Estonia (c)	5,118	X	1,163	X	3,955	X	261	X	44	X	91.6	306.8	8.50
Finland	50,532	18.9	4,056	36.0	46,476	17.6	1,637	18	11,765	46	750.4	10,577.9	21.93
France	41,443	1.8	9,800	0.0	31,643	2.4	4,488	70	8,947	54	6,120.8	4,707.6	1.29
Germany	38,091	(9.4)	2,602	(39.7)	35,489	(6.0)	11,522	37	15,658	38	11,163.0	9,784.2	1.66
Greece	1,816	(40.7)	1,257	(42.4)	559	(36.5)	321	(21)	574	104	702.3	70.7	0.48
Hungary	4,020	(40.1)	1,878	(36.1)	2,143	(43.2)	497	35	684	30	506.9	273.8	1.12
Iceland	0	0.0	0	0.0	0	0.0	0	0	0	0	64.2	1.4	0.05
Ireland	2,246	72.8	67	42.3	2,178	73.9	545	139	0	(100)	799.5	222.8	0.36
Italy	9,272	0.7	5,121	12.1	4,151	(10.5)	4,097	33	7,744	55	7,369.4	2,921.6	0.94
Latvia (c)	8,936	X	2,746	X	6,189	X	311	X	14	X	83.7	498.0	17.34
Lithuania (c)	5,189	X	1,183	X	4,006	X	245	X	31	X	99.7	186.3	3.57
Macedonia, FYR (c)	774	X	616	X	158	X	2	X	21	X	56.7	17.7	1.33
Moldova, Rep (c)	397	X	346	X	51	X	10	X	X	X	17.7	2.8	0.27
Netherlands	1,028	(13.4)	132	20.0	896	(16.8)	101	11	3,109	39	4,878.6	2,718.7	1.27
Norway	8,251	(21.0)	355	(61.4)	7,896	(17.1)	568	(15)	2,159	34	1,230.0	1,808.3	2.86
Poland	21,772	(6.7)	1,492	(58.8)	20,280	2.9	3,024	43	1,636	18	1,098.9	758.6	1.91
Portugal	8,978	(5.5)	550	10.0	8,428	(6.3)	1,215	31	1,081	71	1,162.6	1,420.4	4.39
Romania	12,476	(34.0)	3,174	(8.8)	9,302	(39.7)	390	(69)	317	(61)	147.6	315.0	3.20
Russian Federation (c)	115,693	X	36,670	X	79,023	X	3,286	X	3,368	X	630.0	2,947.7	2.88
Slovakia (c)	5,312	X	416	X	4,896	X	330	X	531	X	205.0	334.4	3.05
Slovenia (c)	2,111	X	482	X	1,628	X	437	X	459	X	355.3	485.3	4.64
Spain	15,631	5.4	3,198	73.8	12,433	(4.3)	2,970	48	3,977	22	3,713.3	1,568.1	1.06
Sweden	58,200	9.5	3,800	(13.6)	54,400	11.6	940	(29)	9,551	23	1,430.0	10,442.7	10.34
Switzerland	4,365	(5.8)	931	4.6	3,434	(8.3)	686	1	1,545	34	2,385.0	1,873.3	X
Ukraine (c)	10,176	X	1,832	X	8,344	X	289	X	270	X	264.2	118.1	0.58
United Kingdom	7,403	33.2	232	63.0	7,171	32.4	2,652	98	6,382	54	9,609.5	2,031.9	0.55
Yugoslavia (c)	1,320	X	50	X	1,270	X	132	X	78	X	166.4	45.0	X
MIDDLE EAST & N. AFRICA (b)	44,094	14.8	25,620	4.9	18,474	32.1	2,978	92	2,321	52	5,376.8	228.4	X
Afghanistan	7,928	39.8	6,210	46.9	1,717	19.1	1	0	0	0	1.3	0.2	X
Algeria	2,676	33.5	2,239	27.2	437	79.5	50	0	62	(48)	336.9	0.3	0.00
Egypt	2,776	23.6	2,647	23.6	129	23.3	81	27	263	70	948.9	8.2	0.05
Iran, Islamic Rep	6,881	7.5	1,997	0.0	4,884	10.8	444	117	180	100	344.4	1.3	0.01
Iraq	134	106.7	81	442.2	53	6.0	4	22	19	(33)	1.1	0.1	X
Israel	118	0.3	13	15.2	105	(1.3)	230	55	275	72	694.2	23.8	0.08
Jordan	11	33.3	7	66.7	4	0.0	0	0	32	164	125.9	16.3	0.42
Kuwait	0	0.0	0	0.0	0	0.0	0	0	0	0	94.0	0.4	0.00
Lebanon	400	17.8	393	20.9	7	(51.2)	46	0	42	4	172.1	5.1	0.33
Libyan Arab Jamahiriya	650	1.7	536	0.0	114	10.7	0	0	6	0	46.2	0.0	X
Morocco (f)	1,324	(7.4)	539	(31.2)	785	21.4	35	(75)	108	2	335.7	59.6	0.63
Oman	0	0.0	0	0.0	0	0.0	0	0	0	0	27.1	0.7	0.01
Saudi Arabia	0	0.0	0	0.0	0	0.0	0	0	0	0	631.6	6.9	0.01
Syrian Arab Rep	50	(21.6)	16	53.9	35	(36.1)	27	0	1	(91)	117.0	0.3	0.00
Tunisia	2,770	22.6	2,559	20.1	211	64.5	104	16	97	58	203.2	17.3	0.21
Turkey	18,376	7.0	8,383	(20.1)	9,994	49.6	1,956	150	1,236	68	918.0	80.8	0.16
United Arab Emirates	0	0.0	0	0.0	0	0.0	0	0	0	0	290.1	6.7	X
Yemen	0	0.0	0	0.0	0	0.0	0	0	0	0	42.9	0.2	0.01

Data Table FG.3 Continued

	Average Annual Roundwood Production						Average Annual Forest Products Production				Trade in Forest Products (a)		
	Total Roundwood		Wood Fuel		Industrial Roundwood		Wood-Based Panels		Paper and Paperboard		Import	Export	Percent of Total Exports
	Cubic Meters (000)	Percent Change Since 1986-88	Cubic Meters (000)	Percent Change Since 1986-88	Cubic Meters (000)	Percent Change Since 1986-88	Cubic Meters (000)	Percent Change Since 1986-88	Metric Tons (000)	Percent Change Since 1986-88	Value (million US\$)	Value (million US\$)	
	1996-98	1986-88	1996-98	1986-88	1996-98	1986-88	1996-98	1986-88	1996-98	1986-88	1996-98	1996-98	
SUB-SAHARAN AFRICA (b)	512,491	28.5	445,783	28.4	66,709	29.6	1,630	14	2,302	16	980.6	2,628.9	X
Angola	6,272	37.3	5,220	38.5	1,052	31.5	11	(55)	0	0	4.6	1.2	0.02
Benin	5,839	31.8	5,507	31.5	332	35.9	0	0	0	0	2.1	1.8	0.34
Botswana	1,641	33.4	1,540	33.4	101	33.3	0	0	0	0	0.0	0.0	X
Burkina Faso	10,506	32.0	10,022	32.0	484	31.9	0	0	0	0	2.3	0.0	0.00
Burundi	1,669	36.7	1,487	26.7	182	286.9	0	0	0	0	2.9	0.1	0.06
Cameroun	15,191	29.1	11,869	31.9	3,323	20.2	124	42	2	(67)	22.5	426.6	17.46
Central African Rep.	3,388	(1.4)	2,660	(12.3)	728	80.1	1	(67)	0	0	0.2	27.2	12.75
Chad	1,871	36.5	1,147	35.7	724	37.8	0	0	0	0	1.9	0.1	0.03
Congo	3,985	29.6	2,456	32.7	1,529	25.0	54	(5)	0	0	1.4	147.4	8.19
Congo, Dem Rep	48,372	40.9	44,814	42.0	3,557	27.9	21	(47)	3	13	6.0	63.3	4.38
Côte d'Ivoire	12,983	21.1	9,970	32.8	3,013	(6.4)	306	42	0	0	36.7	280.1	5.68
Equatorial Guinea	811	27.4	447	0.0	364	92.3	9	13	0	0	1.0	56.8	13.18
Eritrea (c)	X	X	2,110	X	X	X	0	0	0	0	9.3	0.0	0.00
Ethiopia (c)	48,990	X	46,522	X	2,468	X	13	X	9	X	15.9	0.1	0.01
Gabon	5,144	62.1	2,491	33.2	2,653	103.8	36	(80)	0	0	4.3	287.6	8.73
Gambia	813	28.7	700	17.6	113	207.9	0	0	0	0	0.8	0.2	0.08
Ghana	21,931	61.3	20,678	64.4	1,253	22.9	136	112	0	0	15.8	144.7	8.73
Guinea	8,643	137.5	7,977	154.5	666	32.1	0	0	0	0	5.6	8.7	1.17
Guinea-Bissau	586	4.5	422	0.0	164	18.0	0	0	0	0	0.2	3.1	5.55
Kenya	28,813	32.5	26,879	33.6	1,934	19.0	52	26	129	41	30.0	1.1	0.04
Lesotho	1,556	27.4	1,556	27.4	0	0.0	0	0	0	0	0.0	0.0	0.00
Liberia	2,936	(19.2)	2,700	0.0	236	(74.7)	45	644	0	0	1.0	11.9	X
Madagascar	9,254	19.5	8,878	28.0	376	(53.4)	5	20	4	(62)	9.3	6.0	0.77
Malawi	9,449	25.2	8,950	24.2	499	44.6	18	213	0	0	4.5	2.3	0.38
Mali	6,284	24.0	5,890	24.2	394	21.4	0	0	0	0	5.3	1.4	0.21
Mauritania	15	28.6	9	28.6	6	28.6	0	0	0	0	2.3	0.4	0.08
Mozambique	17,973	18.2	16,724	17.0	1,249	37.2	3	(64)	0	(100)	1.4	9.6	1.92
Namibia	X	X	X	X	X	X	X	X	X	X	X	X	0.00
Niger	6,260	38.8	5,873	38.8	386	38.8	0	0	0	0	1.8	0.1	0.04
Nigeria	95,993	17.6	87,001	18.0	8,992	14.3	38	(80)	59	(28)	79.8	29.8	0.19
Rwanda	3,020	(48.3)	3,000	(46.4)	20	(91.7)	0	(100)	0	0	1.9	0.1	0.05
Senegal	4,785	29.7	4,029	30.0	756	28.0	0	0	0	0	23.7	0.1	0.01
Sierra Leone	3,215	16.2	3,092	17.6	124	(11.7)	0	0	0	0	2.2	0.6	0.64
Somalia	7,616	7.7	7,513	7.7	102	5.1	0	(100)	0	0	0.2	0.1	X
South Africa (g)	32,906	46.1	14,467	36.5	18,439	54.6	653	64	1,988	19	481.6	1,025.0	2.89
Sudan	9,289	23.0	7,207	23.1	2,082	22.5	2	0	3	(69)	34.4	0.1	0.02
Tanzania, United Rep	38,193	35.0	35,947	35.4	2,246	27.9	4	(67)	25	32	6.0	4.8	0.40
Togo	1,156	41.2	872	33.2	284	73.0	0	0	0	0	3.4	2.2	0.35
Uganda	15,236	30.1	13,080	29.7	2,156	32.8	5	47	3	50	3.3	0.0	0.00
Zambia	8,051	31.2	7,219	28.7	832	57.8	18	(20)	3	(2)	5.0	0.6	0.05
Zimbabwe	8,192	8.3	6,260	2.2	1,932	34.4	68	148	74	(7)	29.0	22.1	0.72
NORTH AMERICA (b)	679,734	(0.4)	79,960	(16.5)	599,774	2.3	50,958	27	97,608	17	27,786.9	43,315.3	X
Canada	190,711	2.3	5,319	(19.5)	185,392	3.1	11,154	79	19,530	22	3,663.6	25,202.6	10.19
United States	489,023	(1.3)	74,641	(16.3)	414,382	1.9	39,804	17	78,078	16	24,115.6	18,112.6	1.93
C. AMERICA & CARIBBEAN (b)	68,541	15.7	59,230	17.8	11,743	7.0	715	(31)	3,749	23	2,455.5	489.8	X
Belize	188	5.5	126	0.0	62	19.0	X	X	0	0	3.6	2.6	0.81
Costa Rica	5,215	40.6	3,548	34.0	1,668	57.4	74	56	20	40	132.4	14.0	0.31
Cuba	2,756	(5.9)	2,145	(7.9)	611	2.2	149	12	57	(61)	23.1	0.1	X
Dominican Rep	562	0.0	556	0.0	6	0.0	406	563	57	497	161.9	0.6	0.01
El Salvador	4,881	(11.0)	4,386	(18.6)	496	426.7	0	0	56	234	65.1	5.8	0.21
Guatemala	13,026	24.6	12,794	23.8	232	99.5	43	506	31	106	101.0	11.6	0.36
Haiti	6,295	26.9	6,056	28.3	239	0.0	X	X	0	0	12.8	0.0	0.00
Honduras	6,929	24.9	6,209	34.3	720	(22.0)	17	92	96	100	76.7	35.7	1.63
Jamaica	343	(64.0)	300	(60.4)	43	(78.0)	0	(100)	0	(100)	73.4	0.3	0.01
Mexico	22,940	13.0	15,677	20.0	7,263	0.5	0	(100)	3,404	21	1,429.7	388.1	0.32
Nicaragua	4,105	34.1	3,864	40.0	241	(19.7)	5	(17)	0	0	11.8	21.4	2.48
Panama	1,080	15.0	985	20.6	95	(22.3)	21	320	28	17	83.3	7.0	0.08
Trinidad and Tobago	71	45.8	2,559	20.1	61	57.6	0	0	0	0	72.6	0.7	0.03
SOUTH AMERICA (b)	296,757	4.8	167,017	(7.9)	129,740	27.4	5,373	40	9,720	29	3,364.1	4,791.5	X
Argentina	11,428	19.4	3,741	24.7	7,687	16.9	619	67	1,098	10	822.5	269.0	0.94
Bolivia	2,129	49.7	1,324	26.5	806	114.2	21	106	2	33	29.2	66.0	4.84
Brazil	198,402	(6.0)	114,052	(18.7)	84,350	19.0	3,181	17	6,295	36	1,161.4	2,563.2	4.25
Chile	30,493	70.9	10,404	51.6	20,089	83.0	985	305	645	51	256.0	1,393.6	6.76
Colombia	18,622	14.6	16,402	30.6	2,221	(39.7)	118	(35)	703	46	365.8	65.5	0.41
Ecuador	11,081	89.5	5,296	76.3	5,785	103.4	0	0	90	159	209.4	98.8	1.65
Guyana	501	134.8	10	3.3	491	141.3	80	100	0	0	3.4	38.3	X
Paraguay	8,097	12.4	4,220	6.3	3,877	19.9	161	58	13	35	28.4	81.0	1.87
Peru	8,494	(0.1)	7,044	(4.3)	1,450	27.4	66	38	114	(44)	150.2	38.4	0.46
Suriname	193	7.3	1	(46.4)	192	7.9	8	(13)	0	0	1.4	5.6	X
Uruguay	5,058	56.7	3,588	40.0	1,470	120.9	6	(44)	88	40	84.1	77.1	1.81
Venezuela	2,140	34.1	876	26.0	1,264	40.3	127	(17)	672	2	249.5	92.5	0.37
OCEANIA (b)	49,325	27.6	8,529	(0.3)	32,503	31.5	2,657	74	3,290	42	1,921.8	2,627.2	X
Australia	22,528	14.8	2,700	0.0	11,524	0.1	1,440	48	2,427	48	1,560.4	765.1	0.91
Fiji	670	133.7	37	0.0	633	153.5	16	(2)	0	0	9.9	28.9	2.41
New Zealand	16,275	63.4	17	(66.7)	16,259	64.1	1,186	132	863	29	299.6	1,365.4	7.66
Papua New Guinea	8,772	8.1	5,533	0.0	3,239	25.3	15	(42)	0	0	8.8	339.3	13.78
Solomon Islands	872	83.5	138	6.7	734	112.1	0	0	0	0	0.3	122.8	51.39
AFRICA (b)	522,687	28.3	454,303	28.1	68,384	29.8	1,899	7	2,838	17	2,851.4	2,714.3	X
ASIA (b,c)	1,145,856	X	880,416	X	285,268	X	41,765	X	84,062	X	40,620.7	16,577.0	X
DEVELOPING (b)	1,989,087	15.8	1,551,162	16.5	440,367	13.1	42,124	87	67,800	102	32,574.1	22,491.3	X
DEVELOPED (b)	1,272,533	(14.9)	190,901	(22.6)	1,081,749	(13.3)	109,266	9	220,485	21	110,361.0	112,821.7	X

Notes: Negative numbers are shown in parentheses. a. Includes trade in industrial roundwood, wood fuel, sawnwood, wood-based panels, pulp, paper and paperboard, recovered paper, chips and particles, and wood residues. b. Regional and world totals calculated by the Food and Agriculture Organization of the United Nations. They include countries not listed in this table. c. Due to recent independence of countries in the former Soviet Union, Yugoslavia, Czechoslovakia, and Ethiopia, percentage changes from 1986-88 to 1996-98 cannot be shown for these countries or for the regional totals for Asia (excluding the Middle East), Europe, and Asia. d. Includes mainland China; Hong Kong, SAR; Taiwan, Province of China; and Macau. e. Data for Belgium includes Luxembourg. f. Data are for Morocco and Western Sahara. g. Data are for South Africa and Namibia.

Sources: Food and Agriculture Organization of the United Nations and World Bank

	Cattle (a)		Sheep and Goats (a)		Equines (a)		Buffaloes and Camels (a)		Grains Fed to Livestock as Percent of Total Grain Consumption (a)		Meat Production (000 metric tons)		Meat Production (000 metric tons)	
	Annual Average (000)	Percent Change Since 1986-88	Annual Average (000)	Percent Change Since 1986-88	Annual Average (000)	Percent Change Since 1986-88	Annual Average (000)	Percent Change Since 1986-88	1988	1998	Average Annual 1996-98	Percent Change Since 1986-88	Average Annual 1996-98	Percent Change Since 1986-88
	1996-98	1986-88	1996-98	1986-88	1996-98	1986-88	1996-98	1986-88	1988	1998	1996-98	1986-88	1996-98	1986-88
WORLD	1,328,037	4.7	1,760,712	5.9	119,121	2.3	180,281	12.1	38	37	53,921	6	10,954	26
ASIA (EXCL. MIDDLE EAST)	424,516	X	652,805	X	37,216	X	158,580	X	X	X	8,785	138	4,357	116
Armenia	504	X	582	X	14	X	0	X	52	25	31	X	6	X
Azerbaijan	1,768	X	5,429	X	54	X	322	X	47	17	48	X	26	X
Bangladesh	23,645	4.8	34,910	95.8	X	X	845	27.1	0	0	153	13	122	99
Bhutan	435	12.9	101	47.7	58	12.0	4	(18.9)	0	0	6	13	0	61
Cambodia	2,867	57.9	X	X	22	57.1	761	14.0	0	0	41	84	X	X
China (b)	95,493	35.2	256,879	53.2	24,166	(9.4)	21,706	3.0	18	26	3,775	506	2,038	185
Georgia	1,003	X	654	X	27	X	19	X	53	30	55	X	9	X
India	209,156	4.9	176,279	14.2	2,190	5.1	92,240	18.5	2	4	1,383	31	680	18
Indonesia	12,029	23.8	22,307	38.8	634	(7.2)	3,143	(5.6)	5	8	350	78	101	30
Japan	4,759	1.2	47	(36.0)	30	36.8	X	X	49	47	537	(5)	0	(12)
Kazakhstan	5,428	X	14,288	X	1,353	X	123	X	59	37	404	X	144	X
Korea, Dem People's Rep	558	(53.5)	1,183	19.9	40	(4.8)	X	X	0	0	20	(52)	5	17
Korea, Rep	3,318	37.6	6,229	254.3	7	128.0	X	X	39	47	321	62	3	323
Kyrgyzstan	849	X	3,836	X	323	X	49	X	69	25	92	X	47	X
Lao People's Dem Rep	1,175	66.8	149	81.1	26	(38.1)	1,176	15.7	0	0	13	156	0	99
Malaysia	723	13.7	575	31.1	4	(27.0)	150	(30.1)	37	41	18	59	1	0
Mongolia	3,469	40.4	23,122	31.5	2,773	37.8	358	(35.1)	0	0	87	19	114	(4)
Myanmar	10,306	3.8	1,626	9.9	130	(9.7)	2,300	4.7	0	0	99	4	8	10
Nepal	7,019	10.4	6,768	13.8	X	X	3,355	14.9	0	0	48	17	37	25
Pakistan	17,933	2.0	78,181	41.8	4,579	31.1	21,819	27.9	3	4	368	43	784	98
Philippines	2,263	29.1	6,440	44.4	210	6.8	2,938	0.8	19	23	131	90	78	262
Singapore	0	(30.4)	0	(77.3)	X	X	0	(85.0)	42	14	0	(84)	0	(84)
Sri Lanka	1,607	(10.3)	536	(4.3)	2	0.0	736	(24.8)	0	0	25	3	2	(14)
Tajikistan	1,090	X	2,335	X	78	X	45	X	36	10	25	X	11	X
Thailand	6,959	39.9	173	(3.2)	14	(25.3)	3,470	(42.0)	25	31	213	34	1	2
Turkmenistan	1,019	X	6,036	X	43	X	40	X	43	23	56	X	55	X
Uzbekistan	5,240	X	9,222	X	316	X	26	X	40	12	381	X	79	X
Viet Nam	3,896	31.5	514	22.7	122	(9.9)	2,950	7.7	0	0	83	32	5	45
EUROPE	164,643	X	182,758	X	8,868	X	226	X	64	58	13,254	20	1,619	17
Albania	786	18.8	3,143	29.6	196	11.0	0	(94.0)	0	0	32	92	16	66
Austria	2,265	(13.7)	432	51.5	73	64.9	X	X	70	69	208	(8)	7	60
Belarus	4,903	X	221	X	239	X	X	X	75	58	269	X	3	X
Belgium (c)	3,276	3.3	169	(4.4)	24	(0.9)	X	X	33	58	335	4	4	(40)
Bosnia and Herzegovina	278	X	276	X	50	X	1	X	X	X	13	X	3	X
Bulgaria	609	(63.7)	3,966	(59.7)	466	(4.2)	12	(54.6)	59	49	70	(44)	52	(35)
Croatia	452	X	537	X	23	X	X	X	X	X	25	X	2	X
Czech Rep	1,848	X	155	X	19	X	X	X	X	58	151	X	2	X
Denmark	2,032	(14.2)	151	63.9	33	5.1	X	X	80	78	172	(26)	2	65
Estonia	342	X	41	X	4	X	X	X	74	45	20	X	0	X
Finland	1,158	(22.5)	113	63.2	54	44.3	X	X	66	70	97	(21)	1	1
France	20,571	(7.3)	11,638	(11.0)	380	24.9	X	X	61	70	1,695	(11)	149	(17)
Germany	15,626	(25.8)	2,443	(39.9)	680	44.0	X	X	X	64	1,519	(26)	43	(1)
Greece	557	(21.5)	15,253	13.7	162	(49.9)	1	(24.1)	59	59	70	(17)	130	0
Hungary	903	(47.5)	1,004	(58.1)	75	(23.8)	X	X	73	76	64	(47)	1	(87)
Iceland	75	6.3	473	(24.8)	80	34.1	X	X	X	X	3	4	8	(35)
Ireland	6,947	21.8	5,550	47.6	65	(10.6)	X	X	63	67	563	16	84	76
Italy	7,198	(18.6)	12,215	(3.1)	369	(6.1)	161	56.7	49	53	1,150	(2)	76	8
Latvia	474	X	51	X	25	X	X	X	72	54	26	X	0	X
Lithuania	1,062	X	46	X	80	X	X	X	80	60	90	X	1	X
Macedonia, FYR	292	X	1,980	X	66	X	1	X	X	X	7	X	9	X
Moldova, Rep	619	X	1,304	X	64	X	X	X	69	55	34	X	3	X
Netherlands	4,405	(9.3)	1,724	65.5	97	51.8	X	X	42	49	560	6	16	44
Norway	1,014	6.9	2,547	8.0	23	40.8	X	X	73	67	89	16	27	4
Poland	7,133	(32.6)	498	(89.4)	562	(51.4)	X	X	65	64	425	(41)	3	(90)
Portugal	1,310	(1.1)	6,933	17.5	228	(18.3)	X	X	49	60	101	(6)	26	(0)
Romania	3,389	(49.0)	10,317	(42.8)	846	17.6	0	0.0	76	66	182	(7)	64	(24)
Russian Federation	35,732	X	23,186	X	2,276	X	34	X	64	41	2,424	X	203	X
Slovakia	875	X	447	X	12	X	X	X	X	58	62	X	2	X
Slovenia	476	X	37	X	8	X	X	X	X	X	50	X	0	X
Spain	5,759	16.4	26,094	16.5	410	(13.7)	X	X	71	76	596	33	243	9
Sweden	1,759	4.9	439	9.9	87	51.4	X	X	76	75	143	5	4	(27)
Switzerland	1,694	(9.2)	485	10.1	57	13.3	X	X	65	59	153	(8)	6	31
Ukraine	15,210	X	3,169	X	768	X	X	X	65	42	920	X	24	X
United Kingdom	11,688	(4.2)	42,853	10.0	173	4.4	X	X	49	49	700	(33)	372	23
Yugoslavia	1,906	X	2,846	X	90	X	17	X	X	X	236	X	31	X
MIDDLE EAST & N. AFRICA	33,818	3.6	250,065	5.4	11,339	(6.3)	5,818	7.8	35	32	1,475	24	1,920	25
Afghanistan	1,500	(0.7)	16,500	16.1	1,483	(14.3)	265	(4.2)	0	0	65	(2)	141	17
Algeria	1,244	(11.1)	20,069	8.1	345	(36.9)	139	13.0	34	25	101	38	183	70
Egypt	3,082	33.3	7,433	35.7	3,032	56.6	3,184	23.7	38	32	269	98	120	41
Iran, Islamic Rep	8,564	31.4	78,419	22.3	1,787	(26.5)	605	11.6	25	20	297	70	401	33
Iraq	1,274	(19.7)	7,900	(24.8)	436	(13.8)	71	(62.1)	31	12	43	(2)	26	(20)
Israel	379	15.2	420	(3.7)	11	0.0	5	(9.1)	57	60	42	26	6	12
Jordan	63	110.3	2,924	81.3	25	(0.3)	18	15.0	40	50	3	224	14	125
Kuwait	21	(17.9)	542	83.8	1	(66.3)	9	14.2	57	46	1	(70)	40	19
Lebanon	75	28.4	798	32.2	35	46.0	1	76.9	46	50	12	(20)	15	46
Libyan Arab Jamahiriya	150	(31.8)	6,850	23.1	69	(19.4)	102	(20.3)	35	26	19	(34)	45	7
Morocco	2,519	(17.6)	21,002	5.8	1,609	4.0	36	(5.1)	25	27	109	(5)	124	42
Oman	146	9.1	877	(5.1)	27	12.1	95	17.6	0	0	3	(3)	15	43
Saudi Arabia	220	(5.0)	12,352	23.1	100	(9.1)	422	8.8	71	72	17	(24)	102	29
Syrian Arab Rep	856	17.8	14,742	7.7	238	(6.8)	9	40.5	31	37	42	39	155	50
Tunisia	724	12.8	7,701	15.5	367	5.2	231	6.5	33	34	46	26	49	15
Turkey	11,620	(8.0)	41,180	(27.3)	1,261	(36.5)	230	(57.5)	34	34	347	(5)	374	(2)
United Arab Emirates	75	70.9	1,377	85.0	0	22.8	170	84.0	43	25	10	84	37	55
Yemen	1,215	8.6	8,081	22.0	503	(4.5)	180	18.3	X	0	43	21	42	17

Data Table FG.4 continued

	Cattle (a)		Sheep and Goats (a)		Equines (a)		Buffaloes and Camels (a)		Grains Fed to Livestock as Percent of Total Grain Consumption (a)		Meat Production (000 metric tons) Beef and Veal		Sheep and Goats	
	Annual Average (000)	Percent Change Since 1986-88	Annual Average (000)	Percent Change Since 1986-88	Annual Average (000)	Percent Change Since 1986-88	Annual Average (000)	Percent Change Since 1986-88	1988	1998	Annual Average 1996-98	Percent Change Since 1986-88	Annual Average 1996-98	Percent Change Since 1986-88
	1996-98	1986-88	1996-98	1986-88	1996-98	1986-88	1996-98	1986-88	1988	1998	1996-98	1986-88	1996-98	1986-88
SUB-SAHARAN AFRICA	206,563	21.1	365,718	25.0	15,610	15.2	13,850	4.9	2	2	2,969	8	1,339	33
Angola	3,455	4.7	1,713	0.3	6	10.4	X	X	0	0	62	9	5	18
Benin	1,383	52.8	1,621	(7.9)	6	0.0	X	X	0	0	20	50	6	20
Botswana	2,383	2.1	2,090	20.1	270	57.1	X	X	0	0	41	8	6	26
Burkina Faso	4,492	21.0	13,914	32.4	496	21.4	14	17.4	1	4	49	37	34	50
Burundi	369	(16.9)	1,213	11.8	X	X	X	X	0	0	11	(5)	4	17
Cameroon	5,717	31.0	7,600	41.6	51	10.1	X	X	0	0	88	43	31	48
Central African Rep	2,926	30.2	2,406	91.4	X	X	X	X	0	0	54	58	8	81
Chad	5,298	32.6	6,940	60.0	505	22.4	662	31.8	0	0	39	12	26	47
Congo	73	4.9	401	19.4	0	(18.8)	X	X	0	0	2	(10)	1	17
Congo, Dem Rep	1,083	(21.9)	5,144	29.3	X	X	X	X	5	0	16	(37)	24	65
Côte d'Ivoire	1,303	39.9	2,380	25.8	X	X	X	X	4	3	40	42	10	15
Equatorial Guinea	5	6.7	44	4.1	X	X	X	X	X	X	0	7	0	13
Eritrea	1,320	X	2,930	X	X	X	69	X	X	X	11	X	10	X
Ethiopia (d)	29,900	6.8	38,667	(6.5)	8,580	11.0	1,027	1.0	0	0	270	12	144	(2)
Gabon	39	85.6	259	14.0	X	X	X	X	0	0	1	61	1	26
Gambia	339	10.8	415	11.8	53	(5.9)	X	X	0	0	3	5	1	22
Ghana	1,183	2.8	4,382	15.6	15	1.7	X	X	4	4	21	7	12	24
Guinea	2,291	100.0	1,439	110.5	5	43.8	X	X	0	0	15	81	4	77
Guinea-Bissau	507	44.3	575	38.3	7	34.2	X	X	0	0	4	46	2	39
Kenya	13,789	8.0	13,133	0.5	2	0.0	822	4.4	3	1	258	18	52	10
Lesotho	585	(1.2)	1,897	(28.6)	267	1.3	X	X	53	16	14	10	6	(4)
Liberia	36	(14.3)	430	(10.0)	X	X	X	X	0	0	1	(25)	1	(0)
Madagascar	10,329	1.1	2,093	3.7	1	(11.9)	X	X	0	0	145	5	10	5
Malawi	750	(23.1)	1,373	39.0	2	35.8	X	X	2	4	18	12	5	40
Mali	5,719	24.3	14,279	34.2	777	64.3	352	51.5	1	1	88	40	54	56
Mauritania	1,312	7.0	10,332	39.3	174	5.4	1,164	38.0	0	0	10	(34)	24	38
Mozambique	1,287	(4.7)	508	9.2	21	5.0	X	X	0	0	37	(2)	3	7
Namibia	2,079	7.6	4,011	(9.4)	132	8.1	X	X	X	X	50	38	11	(19)
Niger	2,079	39.0	10,070	43.3	532	16.1	390	(2.3)	0	0	36	42	37	22
Nigeria	19,300	43.6	38,500	22.4	1,204	15.3	18	0.2	2	2	290	11	240	68
Rwanda	492	(17.0)	1,237	(10.3)	0	0.0	X	X	11	6	13	(3)	4	(10)
Senegal	2,887	15.6	7,791	46.0	880	43.9	7	(43.3)	1	0	46	17	29	50
Sierra Leone	397	19.1	535	28.0	X	X	X	X	0	0	6	28	1	12
Somalia	5,433	13.8	26,533	(19.8)	40	(18.7)	6,200	(6.2)	2	7	59	37	61	(25)
South Africa	13,619	9.2	36,139	1.9	479	5.5	X	X	43	42	495	(20)	131	(15)
Sudan	33,119	67.8	76,000	131.1	725	7.6	3,063	12.9	0	0	230	4	247	165
Tanzania, United Rep	14,163	10.9	13,640	21.1	178	4.1	X	X	2	2	211	20	36	22
Togo	215	(10.5)	1,793	(24.4)	5	17.8	X	X	16	15	7	46	7	39
Uganda	5,345	20.0	5,525	34.8	18	6.0	X	X	0	0	90	47	25	41
Zambia	3,150	21.8	669	27.2	2	41.0	X	X	4	4	31	(5)	3	65
Zimbabwe	5,429	(7.0)	3,245	18.5	132	7.0	X	X	13	14	64	(19)	12	41
NORTH AMERICA	114,949	1.6	10,318	(19.4)	6,596	13.9	0	0.0	63	65	12,836	7	128	(19)
Canada	13,300	23.2	664	26.6	399	(14.9)	X	X	74	76	1,081	11	10	26
United States	101,649	(0.7)	9,655	(21.4)	6,197	16.5	X	X	66	66	11,755	7	118	(21)
C. AMERICA & CARIBBEAN	46,649	(10.9)	19,356	(2.3)	16,063	2.0	5	(37.2)	19	29	1,885	2	83	10
Belize	62	25.4	4	(12.8)	9	0.0	X	X	X	X	1	27	0	0
Costa Rica	1,547	(31.7)	4	0.4	127	1.0	X	X	35	50	87	(5)	0	2
Cuba	4,617	(7.7)	428	(12.7)	657	(13.0)	X	X	0	0	70	(51)	2	(23)
Dominican Rep	2,482	18.6	705	16.3	609	5.9	X	X	44	57	79	13	3	16
El Salvador	1,202	9.8	21	7.0	123	4.2	X	X	20	33	32	52	0	8
Guatemala	2,319	14.1	660	29.5	166	8.1	X	X	25	28	54	16	3	23
Haiti	1,272	6.0	1,580	29.7	780	7.8	X	X	2	2	29	(1)	5	30
Honduras	2,091	(17.4)	42	21.6	267	2.4	X	X	37	44	27	(33)	0	30
Jamaica	407	11.9	441	0.5	37	0.5	X	X	34	34	15	6	2	0
Mexico	26,890	(14.8)	15,038	(6.0)	12,770	2.3	X	X	27	45	1,350	7	66	10
Nicaragua	1,736	(8.3)	10	6.1	299	(2.9)	X	X	0	10	51	52	0	4
Panama	1,415	(0.4)	5	(15.2)	169	17.1	X	X	31	44	66	15	X	X
Trinidad and Tobago	37	(41.2)	71	2.3	5	0.0	5	(37.2)	43	33	1	(26)	0	(6)
SOUTH AMERICA	300,552	16.3	109,840	(11.4)	23,006	9.8	1,701	57.0	46	50	10,214	23	352	4
Argentina	54,367	4.7	20,638	(35.8)	3,565	10.6	X	X	35	55	2,685	(1)	64	(34)
Bolivia	6,248	19.4	9,723	16.0	1,034	3.1	X	X	33	40	147	20	20	9
Brazil	163,000	20.0	30,667	(0.3)	9,750	7.1	1,700	57.0	54	55	5,113	35	130	36
Chile	3,842	14.6	4,727	(23.0)	625	18.3	X	X	31	45	259	42	15	(17)
Colombia	27,431	14.6	3,388	(3.0)	3,750	17.7	X	X	19	31	694	17	15	19
Ecuador	5,195	33.8	2,209	48.0	943	32.5	X	X	25	35	156	64	7	67
Guyana	230	89.0	209	3.0	4	0.0	X	X	3	4	3	71	1	5
Paraguay	9,784	31.6	510	(5.6)	416	13.3	X	X	3	2	228	95	3	(1)
Peru	4,621	10.8	15,158	3.0	1,409	3.2	X	X	28	37	117	12	28	4
Suriname	92	21.6	16	14.9	0	(5.6)	1	24.8	0	0	2	39	0	21
Uruguay	10,561	7.1	18,593	(22.6)	498	7.8	X	X	19	20	433	40	60	12
Venezuela	15,173	20.3	3,999	103.0	1,012	0.5	X	X	60	40	376	26	8	6
OCEANIA	36,313	16.5	168,187	(22.4)	401	(21.3)	0	X	50	62	2,497	22	1,135	(6)
Australia	26,622	18.8	120,545	(19.7)	232	(30.5)	X	X	53	66	1,839	23	600	1
Fiji	360	38.5	223	19.2	44	5.7	X	X	0	0	9	(6)	1	35
New Zealand	8,904	9.8	47,345	(28.8)	85	(12.4)	X	X	41	46	638	20	534	(13)
Papua New Guinea	87	(18.8)	7	38.6	2	28.4	X	X	0	0	2	(14)	0	43
Solomon Islands	10	(35.8)	X	X	0	3.4	X	X	X	X	0	(35)	X	X
DEVELOPED	350,777	(14.2)	439,954	(24.0)	18,509	(1.7)	855	1.9	X	X	30,733	(11)	3,395	(12)
DEVELOPING	977,228	13.7	1,319,094	22.0	100,590	3.1	179,325	12.2	X	X	23,183	40	7,538	57

Notes: It is assumed that all countries with livestock have reported their numbers to the Food and Agriculture Organization of the United Nations. a. World and regional totals calculated by the Economic Research Service, U.S. Department of Agriculture. b. Includes Taiwan. c. Data for Belgium include Luxembourg. d. Data for Ethiopia before 1993 include Eritrea.

Sources: Food and Agriculture Organization of the United Nations and U.S. Department of Agriculture

International Geosphere-Biosphere Programme
(IGBP) Classification (000 km²)

Pilot Analysis of Global Ecosystems (PAGE) Classification

	IGBP Land Area	Urban Area (a)	Agricultural Mosaic Area (b)	PAGE Area (000 km ²) (c)	Population (000) (d)	Carbon Stocks (e)		Protected Area (000 km ²) (e)
						Low Estimate	High Estimate (gigatons)	
GRASSLANDS	53,544	1,010	7,172	52,554	792,711	405	806	3,989
Asia (excl. Middle East)	9,033	141	1,281	8,892	249,495	46	102	586
Europe	7,072	116	189	6,966	20,491	118	188	248
Middle East & N. Africa	3,031	161	159	2,871	111,882	5	20	216
Sub-Saharan Africa	14,546	83	3,531	14,464	312,935	97	218	1,329
North America	6,816	238	518	6,583	6,032	63	110	791
C. America & Caribbean	1,130	82	24	1,048	30,533	6	13	56
South America	5,017	150	1,416	4,872	57,529	36	78	307
Oceania	6,898	40	54	6,859	3,814	33	78	457
FORESTS	29,905	930	1,727	28,974	446,470	471	929	2,453
Asia (excl. Middle East)	3,812	91	192	3,721	231,782	45	103	302
Europe	6,957	226	338	6,731	43,713	137	224	155
Middle East & N. Africa	100	10	44	90	6,724	1	1	1
Sub-Saharan Africa	2,672	13	162	2,659	53,823	29	81	155
North America	7,564	449	965	7,115	30,764	166	258	711
C. America & Caribbean	997	59	1	939	33,940	11	23	88
South America	6,928	67	26	6,861	39,860	74	218	957
Oceania	874	17	0	857	5,864	10	21	84
AGRICULTURE	27,890	2,407	X	36,234	2,790,582	336	628	1,594
Asia (excl. Middle East)	8,874	683	X	10,370	1,991,214	82	158	268
Europe	6,840	763	X	7,448	311,923	89	147	338
Middle East & N. Africa	1,025	136	X	1,230	99,662	6	14	11
Sub-Saharan Africa	2,141	38	X	5,837	204,901	45	99	476
North America	2,867	511	X	4,406	47,927	55	90	97
C. America & Caribbean	517	48	X	611	26,973	5	11	43
South America	4,991	216	X	5,642	105,083	49	101	317
Oceania	635	13	X	690	2,899	5	9	45
OTHER	18,136	395	180	22,343	1,812,688	91	223	X
ECOSYSTEM TOTALS (f)	129,476	4,745	9,079	X	X	X	X	X

Notes: a. Area defined by the Nighttime Lights of the World database within each IGBP ecosystem category (i.e., grasslands, forests, other). b. Area classified as 30-40% cropland within each IGBP ecosystem category (i.e., grasslands, forests, other). c. Boundaries for each PAGE ecosystem category are defined independently resulting in an overlap of agriculture ecosystem area with grassland and forest ecosystem area. Area estimates for grasslands and forest exclude urban areas as defined by the Nighttime Lights of the World database; area estimates for agriculture include urban areas. d. Estimates for grassland and forest ecosystems are based on boundaries of PAGE ecosystem categories; estimates for agriculture ecosystems area are based on PAGE ecosystem area definition for agriculture minus the urban areas as defined by the Nighttime Lights of the World database. See Technical Notes for population estimates of total PAGE agriculture ecosystem area. e. Estimates are based on boundaries of PAGE ecosystem categories. f. Global totals cannot be calculated for PAGE categories because the agriculture ecosystem area overlaps with the grasslands and forest ecosystem areas.

Sources: Various

	Marine Fish Catch (a)		Freshwater Fish Catch (b)		Mollusc and Crustacean Catch (c)		Total Aquaculture Production		Aquaculture Production 1995-97 (metric tons)				
	Metric Tons (000)	Percent Change Since 1985-87	Metric Tons (000)	Percent Change Since 1985-87	Metric Tons (000)	Percent Change Since 1985-87	Metric Tons (000)	Percent Change Since 1985-87	Marine Fish	Diad- romous Fish	Fresh- water Fish	Molluscs & Crus- taceans	Aquatic Plants
	1995-97	1985-87	1995-97	1985-87	1995-97	1985-87	1995-97	1985-87	1995-97	1995-97	1995-97	1995-97	1995-97
WORLD	73,218.7	7	6,384.5	19	11,404.2	39	33,684.7	166	653,112	1,695,983	14,590,897	9,679,120	7,065,544
ASIA (EXCL. MIDDLE EAST) (d)	28,352.1	X	3,333.2	X	7,392.4	X	30,577.6	X	558,786	649,822	13,895,613	8,507,320	6,966,058
Armenia (d)	X	X	0.5	X	X	X	3.1	X	X	1,433	1,630	X	X
Azerbaijan (d)	X	X	8.6	X	X	X	0.5	X	0	0	502	X	X
Bangladesh	255.0	27	533.1	23	24.2	199	447.6	192	X	X	338,509	109,113	X
Bhutan	X	X	0.3	6	X	X	0.0	X	X	X	30	X	X
Cambodia	22.5	118	69.6	14	8.0	396	10.3	301	X	X	9,771	532	X
China	8,765.4	203	974.2	134	3,371.9	170	22,054.4	318	248,696	144,841	10,595,404	6,608,371	4,457,078
Georgia (d)	3.7	X	0.5	X	0.5	X	0.0	X	X	2	37	X	X
India	2,423.3	68	608.0	25	341.5	29	1,748.8	149	X	X	1,666,100	82,656	X
Indonesia	2,864.9	72	313.3	21	310.3	77	843.3	106	10,763	171,472	371,310	154,117	135,667
Japan	4,524.7	(53)	59.0	(23)	1,276.9	9	1,350.8	10	253,109	65,896	15,392	475,432	540,956
Kazakhstan (d)	X	X	44.3	X	X	X	1.1	X	X	0	1,133	X	X
Korea, Dem People's Rep	219.9	(86)	20.0	(73)	32.2	184	670.0	(25)	X	X	3,995	71,011	595,032
Korea, Rep	1,635.3	(15)	7.2	(79)	654.5	47	961.9	13	19,622	5,323	17,040	307,892	611,979
Kyrgyzstan (d)	X	X	0.2	X	X	X	0.2	X	X	10	153	X	X
Lao People's Dem Rep	X	X	25.9	20	X	X	14.3	185	X	X	14,267	X	X
Malaysia	927.6	46	4.0	34	180.0	30	115.2	131	3,182	7,094	18,342	86,586	X
Mongolia	X	X	0.2	(51)	X	X	X	X	X	X	X	X	X
Myanmar	616.3	19	159.5	11	22.0	215	76.6	1,305	X	X	76,558	12	X
Nepal	X	X	11.2	106	X	X	10.8	153	X	X	10,848	X	X
Pakistan	369.6	21	138.8	85	38.1	35	18.4	116	X	7	18,333	56	X
Philippines	1,503.1	20	49.3	(39)	137.1	50	952.7	87	875	154,145	90,793	101,329	605,587
Singapore	7.9	(51)	0.0	(100)	1.8	(37)	3.8	156	314	388	90	2,968	X
Sri Lanka	207.3	46	17.7	(43)	6.8	34	6.5	48	X	X	2,516	3,961	X
Tajikistan (d)	X	X	0.2	X	X	X	0.2	X	X	0	154	X	X
Thailand	2,324.5	29	208.9	130	398.2	(9)	561.9	288	1,348	4,064	227,561	328,960	X
Turkmenistan (d)	X	X	9.0	X	X	X	0.4	X	X	X	414	X	X
Uzbekistan (d)	X	X	2.7	X	X	X	7.6	X	X	0	7,564	X	X
Viet Nam	646.5	42	66.7	(49)	317.3	171	435.1	227	X	X	333,005	92,600	9,500
EUROPE (d)	15,595.2	X	415.5	X	1,087.2	X	1,665.1	X	51,661	687,591	192,607	723,641	9,596
Albania	1.1	(85)	0.2	(90)	0.2	(31)	0.3	(87)	0	1	39	213	X
Austria	X	X	0.4	(32)	X	X	3.0	(27)	X	2,201	760	3	X
Belarus (d)	X	X	0.3	X	X	X	4.7	X	X	3	4,696	X	X
Belgium	29.4	(24)	0.5	6	2.4	(8)	0.9	68	X	579	300	X	X
Bosnia and Herzegovina (d)	0.0	X	2.6	X	X	X	X	X	X	X	X	X	X
Bulgaria	4.3	(95)	1.3	(26)	3.8	(39)	4.9	(58)	X	658	4,143	125	X
Croatia (d)	14.2	X	0.4	X	1.7	X	3.5	X	341	334	2,518	282	X
Czech Rep (d)	X	X	3.6	X	X	X	18.1	X	X	778	17,368	X	X
Denmark	1,723.0	4	0.2	(42)	112.5	9	41.7	68	X	41,687	X	X	X
Estonia (d)	113.4	X	2.4	X	4.3	X	0.3	X	X	241	41	X	X
Finland	115.1	18	47.7	(18)	X	X	17.1	52	X	17,100	44	X	X
France	491.5	(11)	4.5	51	75.3	16	284.7	22	3,844	53,817	10,199	216,770	75
Germany	203.0	(34)	23.0	187	17.7	(34)	64.3	(3)	0	25,034	12,667	26,555	X
Greece	116.8	15	16.7	119	32.4	144	38.9	1,497	26,722	2,538	438	9,246	X
Hungary	X	X	13.0	(31)	X	X	8.9	(50)	X	6	8,918	X	X
Iceland	1,857.9	16	0.6	16	100.6	95	3.6	963	13	3,599	X	X	X
Ireland	306.3	46	3.8	2,779	27.0	102	33.0	128	X	15,234	X	17,723	X
Italy	234.8	(25)	9.8	(36)	124.1	(10)	219.3	99	10,883	53,200	4,100	146,122	5,000
Latvia (d)	128.9	X	0.5	X	2.9	X	0.4	X	X	3	414	X	X
Lithuania (d)	36.4	X	1.4	X	2.6	X	1.6	X	X	0	1,589	X	X
Macedonia, FYR (d)	X	X	0.1	X	X	X	1.1	X	X	525	547	X	X
Moldova, Rep (d)	X	X	0.0	X	X	X	1.2	X	X	X	1,230	X	X
Netherlands	398.2	10	2.9	(34)	32.5	(41)	94.0	(7)	21	2,429	1,142	90,415	X
Norway	2,626.8	42	0.6	43	46.0	(50)	321.8	584	648	320,813	X	358	X
Poland	333.5	(40)	23.0	132	16.8	(78)	27.2	38	X	6,090	21,073	X	X
Portugal	224.0	(35)	X	X	23.6	44	5.8	(34)	1,088	1,182	0	3,570	X
Romania	18.7	(90)	6.5	(68)	0.0	0	15.0	(66)	X	408	14,558	X	X
Russian Federation (d)	4,164.4	X	223.9	X	155.0	X	60.5	X	97	3,657	50,865	1,386	4,522
Slovakia (d)	X	X	1.6	X	X	X	1.3	X	X	715	560	X	X
Slovenia (d)	2.0	X	0.3	X	0.0	X	0.9	X	71	513	241	33	X
Spain	977.9	(9)	5.8	(11)	135.7	(9)	231.6	(14)	6,345	26,357	179	198,730	X
Sweden	371.6	75	1.9	(10)	3.7	31	7.5	52	X	5,917	0	1,599	X
Switzerland	X	X	1.8	(59)	X	X	1.2	338	X	1,122	35	X	X
Ukraine (d)	349.6	X	7.5	X	31.8	X	32.7	X	155	108	32,251	179	X
United Kingdom	751.2	(4)	1.9	(2)	134.4	49	111.2	353	X	100,733	X	10,329	X
Yugoslavia (d)	0.3	X	5.0	X	0.0	X	1.6	X	X	6	1,600	1	X
MIDDLE EAST & N. AFRICA	2,049.2	23	375.5	112	176.6	64	167.0	85	35,704	23,607	105,069	2,634	0
Afghanistan	X	X	1.3	48	X	X	X	X	X	X	X	X	X
Algeria	98.7	42	0.0	(100)	2.8	(48)	0.3	155	37	18	256	27	X
Egypt	82.3	99	215.1	67	7.9	155	70.4	58	19,799	X	50,569	X	X
Iran, Islamic Rep	231.2	90	99.6	1,279	12.7	63	29.6	40	X	1,991	27,366	274	X
Iraq	9.2	79	20.8	87	X	X	3.2	(33)	X	X	3,167	X	X
Israel	2.6	(78)	1.4	(12)	0.4	45	16.9	29	2,294	688	13,948	X	X
Jordan	0.0	0	0.4	75	X	X	0.2	206	X	X	184	X	X
Kuwait	6.2	(4)	0.0	0	2.1	(1)	0.1	3,240	111	X	X	X	X
Lebanon	3.8	153	0.0	X	0.1	500	0.3	9	X	317	X	X	X
Libyan Arab Jamahiriya	33.7	108	0.0	0	0.0	(100)	0.1	900	X	X	100	X	X
Morocco	662.8	39	1.7	30	90.7	117	2.1	1,278	972	155	767	229	X
Oman	120.1	10	0.0	0	5.4	117	0.0	(100)	X	X	X	X	X
Saudi Arabia	39.1	(3)	0.0	0	8.5	65	3.7	6,579	0	X	3,330	411	X
Syrian Arab Rep	2.3	95	3.5	90	0.1	110	4.3	77	X	X	4,336	X	X
Tunisia	70.3	(10)	0.7	X	13.7	(14)	1.5	539	886	138	380	111	X
Turkey	463.7	(13)	28.7	19	22.6	59	33.4	1,005	10,983	20,199	668	1,569	X
United Arab Emirates	109.0	38	0.0	0	0.1	36	0.0	(100)	0	X	0	0	X
Yemen	100.5	52	2.2	X	5.1	(10)	X	X	X	X	X	X	X

	Marine Fish Catch (a)		Freshwater Fish Catch (b)		Mollusc and Crustacean Catch (c)		Total Aquaculture Production		Aquaculture Production 1995-97 (metric tons)				
	Metric Tons (000)	Percent Change Since 1985-87	Metric Tons (000)	Percent Change Since 1985-87	Metric Tons (000)	Percent Change Since 1985-87	Metric Tons (000)	Percent Change Since 1985-87	Marine Fish	Diadromous Fish	Freshwater Fish	Molluscs & Crustaceans	Aquatic Plants
	1995-97	1985-87	1995-97	1985-87	1995-97	1985-87	1995-97	1985-87	1995-97	1985-87	1995-97	1985-87	1995-97
SUB-SAHARAN AFRICA	2,389.9	9	1,690.9	21	136.7	11	41.4	285	399	1,069	31,040	5,297	3,609
Angola	73.0	15	6.0	(23)	0.6	71	X	X	X	X	X	X	X
Benin	8.6	2	25.0	(6)	0.1	X	X	X	X	X	X	X	X
Botswana	X	X	2.0	20	X	X	X	X	X	X	X	X	X
Burkina Faso	X	X	8.0	5	X	X	0.0	(16)	X	X	25	X	X
Burundi	X	X	14.8	26	X	X	0.0	46	X	X	23	X	X
Cameroon	63.8	24	23.0	15	0.5	(37)	0.1	(58)	X	X	55	X	X
Central African Rep	X	X	12.7	(2)	X	X	0.4	95	X	X	370	X	X
Chad	X	X	91.7	49	X	X	X	X	X	X	X	X	X
Congo	18.7	(1)	23.9	67	0.5	591	0.1	46	X	X	115	X	X
Congo, Dem Rep	3.9	93	157.4	3	X	X	0.8	41	X	X	750	X	X
Côte d'Ivoire	56.4	(28)	11.3	(54)	0.3	(23)	0.7	291	X	X	655	X	X
Equatorial Guinea	3.1	9	0.7	76	0.6	7	X	X	X	X	X	X	X
Eritrea (d)	2.6	X	0.0	X	0.0	X	X	X	X	X	X	X	X
Ethiopia (d)	0.0	X	8.5	X	X	X	0.0	X	X	X	46	X	X
Gabon	32.8	89	8.8	365	1.4	(26)	0.1	1,875	X	X	53	X	X
Gambia	25.7	211	2.5	(7)	0.7	(64)	0.0	X	X	X	3	X	X
Ghana	352.1	29	67.9	35	5.5	66	0.5	36	X	X	500	X	X
Guinea	76.6	154	3.2	26	8.0	X	0.0	14	X	X	3	X	X
Guinea-Bissau	5.4	94	0.3	188	1.3	25	X	X	X	X	X	X	X
Kenya	4.3	(20)	172.1	53	1.4	51	0.6	168	X	71	506	0	X
Lesotho	X	X	0.0	X	X	X	0.0	(43)	X	4	10	X	X
Liberia	4.2	(62)	4.0	0	0.1	(73)	0.0	(100)	X	X	0	X	X
Madagascar	71.0	101	30.0	(21)	12.7	49	6.3	2,767	X	0	4,153	2,146	X
Malawi	X	X	57.9	(22)	X	X	0.2	20	X	X	227	2	X
Mali	X	X	114.8	102	X	X	0.1	686	X	X	73	X	X
Mauritania	52.0	14	5.8	(3)	28.5	(42)	X	X	X	X	X	X	X
Mozambique	13.5	(47)	8.0	129	12.2	17	0.0	58	X	X	14	X	X
Namibia	281.6	1,466	1.3	51	0.6	(63)	0.0	X	X	X	5	43	0
Niger	X	X	4.7	112	X	X	0.0	103	X	X	20	X	X
Nigeria	224.3	46	106.0	14	20.8	286	17.4	174	X	24	17,014	X	X
Rwanda	X	X	3.1	134	X	X	0.0	(13)	X	X	47	X	X
Senegal	351.9	66	54.4	262	25.6	30	0.1	104	X	X	49	22	X
Sierra Leone	48.2	38	14.7	(9)	1.2	2	0.0	107	X	X	28	X	X
Somalia	14.8	(9)	0.3	(26)	0.9	92	X	X	X	X	X	X	X
South Africa	497.0	(50)	0.8	4	8.9	(33)	3.9	287	3	870	101	2,616	276
Sudan	4.5	382	40.8	64	X	X	1.0	2,595	X	X	1,000	24	X
Tanzania, United Rep	42.5	5	310.7	13	3.0	139	3.6	12,002	X	X	217	X	3,333
Togo	8.8	(24)	5.0	43	0.0	873	0.0	31	X	X	21	X	X
Uganda	X	X	207.3	11	X	X	0.2	479	X	X	205	X	X
Zambia	X	X	64.6	(2)	X	X	4.6	535	X	X	4,550	1	X
Zimbabwe	X	X	16.9	(8)	X	X	0.2	20	X	100	63	15	X
NORTH AMERICA	4,535.1	(11)	66.3	(41)	1,344.5	3	488.8	32	3,714	96,096	235,542	153,415	0
Canada	550.4	(57)	38.9	(15)	311.8	76	73.7	565	0	55,452	X	18,291	X
United States	3,984.8	5	27.4	(59)	1,032.7	(8)	415.0	15	3,714	40,644	235,542	135,125	X
C. AMERICA & CARIBBEAN	1,337.2	(8)	127.5	12	348.7	33	100.9	165	666	1,409	54,463	44,362	1
Belize	0.1	(73)	0.0	(100)	1.0	6	1.1	14,470	X	X	146	971	X
Costa Rica	17.5	61	2.0	568	4.2	(48)	6.9	4,203	X	139	4,015	2,760	X
Cuba	55.7	(69)	0.3	(27)	18.1	(35)	34.2	102	X	X	32,091	2,075	X
Dominican Rep	11.1	(23)	1.5	(16)	2.9	31	1.2	357	215	13	888	129	X
El Salvador	3.6	(30)	3.3	56	5.7	(49)	0.4	(43)	25	X	175	223	X
Guatemala	0.7	4	4.4	1,805	2.5	68	3.8	602	X	X	1,685	2,150	X
Haiti	3.7	(25)	0.5	67	1.5	97	X	X	X	X	X	X	X
Honduras	7.7	71	0.1	X	8.0	(37)	9.1	683	X	X	229	8,898	X
Jamaica	7.3	(18)	0.7	220	2.6	1,296	3.1	128	X	X	3,013	80	X
Mexico	1,037.6	2	113.8	5	270.5	60	32.1	139	416	1,258	11,905	18,495	X
Nicaragua	5.4	324	0.9	766	6.9	175	2.7	7,297	X	X	4	2,733	X
Panama	145.2	(15)	0.1	(40)	14.4	(23)	5.9	83	X	X	220	5,713	X
Trinidad and Tobago	13.5	176	0.0	0	0.7	(6)	0.0	X	X	X	5	7	X
SOUTH AMERICA	17,755.0	49	361.0	8	656.2	80	530.1	588	161	207,309	76,210	160,582	85,875
Argentina	922.1	122	11.9	35	315.0	736	1.3	347	X	1,299	7	25	X
Bolivia	X	X	5.1	58	X	X	0.5	2,973	X	377	84	X	X
Brazil	460.8	(28)	202.2	0	64.5	(32)	58.7	404	X	1,036	49,317	8,382	X
Chile	6,483.7	32	X	X	107.5	(13)	301.5	2,783	161	196,144	X	19,472	85,721
Colombia	107.4	526	22.4	(59)	6.1	(19)	36.8	2,874	0	7,209	22,823	6,745	X
Ecuador	565.6	(34)	0.3	(63)	15.1	8	116.8	143	X	X	587	116,218	X
Guyana	36.5	9	0.7	(11)	14.0	362	0.2	311	X	X	150	43	X
Paraguay	X	X	22.4	120	X	X	0.3	3,945	X	X	297	X	X
Peru	8,676.0	85	37.3	16	60.4	18	6.8	42	X	877	43	5,767	118
Suriname	12.7	278	0.1	(1)	0.2	(71)	0.0	X	X	X	1	0	X
Uruguay	114.9	(15)	1.2	45	12.8	488	0.0	1,367	X	7	6	1	X
Venezuela	371.7	70	57.4	171	56.4	90	7.2	1,198	X	360	2,896	3,929	36
OCEANIA	741.5	78	14.5	(2)	141.9	52	99.4	276	2,016	15,097	186	81,694	405
Australia	126.8	21	1.7	(12)	69.6	6	24.7	163	2,016	9,783	28	12,920	X
Fiji	24.2	0	0.0	24	5.2	194	0.3	70	0	X	146	107	25
New Zealand	458.8	141	1.1	150	60.0	209	72.8	353	X	5,250	X	67,564	X
Papua New Guinea	24.8	161	11.7	(6)	1.6	34	0.0	X	X	9	10	4	X
Solomon Islands	58.1	21	0.0	0	0.1	170	0.0	433	X	X	X	11	X
DEVELOPED	25,743.9	(29)	611.7	(37)	3,848.0	(3)	3,636.0	21	312,797	867,620	469,203	1,435,587	550,828
DEVELOPING	47,011.4	47	5,772.8	32	7,436.2	79	30,034.3	211	340,310	814,380	14,121,527	8,243,359	6,514,716

Notes: Negative values are shown in parentheses. a. Includes marine fish and diadromous fish caught in marine areas. b. Includes freshwater fish and diadromous fish caught in inland waters or low-salinity marine areas. c. Includes marine and freshwater molluscs and crustaceans. d. Due to the recent independence of countries in the former USSR, Yugoslavia, Czechoslovakia, and Ethiopia percentage changes from 1985-87 to 1995-97 cannot be shown for these countries or for the regional totals for Asia (excluding the Middle East) and Europe.

Source: Food and Agriculture Organization of the United Nations

	Trade in Fish and Fishery Products						Food Supply from Fish & Fishery Products						No. of Decked Fishery Vessels (b) 1995
	Fish and Fish Products (million US\$)		Molluscs and Crustaceans (million US\$)		Meals and Solubles (million US\$)		Total (000 metric tons in live weight)	Per Capita (a) (kg per person)	Fish Protein as a Percent of All		No. of Fishers 1996		
	Exports 1996-98	Imports 1996-98	Exports 1996-98	Imports 1996-98	Exports 1996-98	Imports 1996-98			Animal Protein 1997	Protein Supply 1997			
WORLD	X	X	X	X	X	X	93,818	16.1	16.5	6.0	X	1,256,841	
ASIA (EXCL. MIDDLE EAST) (c)	8,239.29	11,665.98	8,480.36	8,686.44	49.21	1,229.40	61,872	18.8	X	X	X	1,057,966	
Armenia	0.00	0.42	0.13	0.13	X	X	3	1.0	1.6	0.5	X	6	
Azerbaijan	0.90	0.55	0.00	0.05	X	X	8	1.1	1.7	0.5	X	X	
Bangladesh	32.37	3.52	261.12	0.48	X	0.20	1,295	10.6	48.3	6.6	1,444,960	61	
Bhutan	X	X	X	X	X	X	0	0.2	1.5	0.3	X	X	
Cambodia	21.85	3.90	4.77	0.11	0.01	0.04	90	8.6	28.3	5.2	78,345	X	
China	1,889.68	445.51	924.46	158.59	1.77	505.08	31,474	25.7	23.9	8.2	12,076,192	432,674	
Georgia	0.15	2.40	0.11	0.05	0.00	X	11	2.1	3.6	1.0	X	82	
India	215.01	6.68	910.91	0.47	0.14	7.79	4,546	4.7	15.3	2.5	5,958,744	d 56,600	
Indonesia	572.49	9.84	1,064.41	10.01	4.02	66.97	3,700	18.2	53.1	9.7	4,668,482	67,325	
Japan	464.11	8,209.70	293.38	6,598.09	6.17	281.51	8,374	66.4	45.8	25.3	287,370	360,747	
Kazakhstan	18.45	12.74	0.01	0.22	0.92	0.11	47	2.9	2.5	0.9	16,000	d 1,970	
Korea, Dem People's Rep	6.47	1.00	47.14	0.98	0.00	0.45	405	17.6	55.7	7.7	X	2,900	
Korea, Rep	893.43	553.69	468.38	286.59	13.86	27.16	2,320	50.7	43.3	17.7	343,869	76,801	
Kyrgyzstan	X	2.04	X	0.01	X	X	3	0.6	0.5	0.2	154	d X	
Lao People's Dem Rep	0.01	1.16	0.07	0.05	X	0.02	43	8.5	29.7	4.8	X	X	
Malaysia	110.43	226.00	210.41	68.87	3.59	10.01	1,178	56.2	34.5	19.8	100,666	17,965	
Mongolia	0.10	0.11	0.00	0.00	X	X	0	0.1	0.1	0.0	X	X	
Myanmar	10.62	0.54	95.18	0.04	0.28	0.01	769	17.5	45.4	6.0	X	140	
Nepal	0.05	0.20	0.00	0.01	X	0.02	23	1.1	3.6	0.5	263,175	X	
Pakistan	49.57	0.06	101.03	0.00	0.00	0.02	299	2.1	3.2	1.0	401,407	5,064	
Philippines	219.07	69.41	219.79	3.93	0.07	49.10	2,161	30.3	42.8	19.9	990,872	3,220	
Singapore	313.00	311.61	162.38	247.90	1.26	1.79	116	34.0	17.0	9.2	611	110	
Sri Lanka	21.27	65.16	59.35	1.62	0.00	4.30	369	20.2	54.3	13.4	83,776	2,990	
Tajikistan	0.05	0.12	0.01	0.06	X	X	1	0.1	0.2	0.0	X	X	
Thailand	1,255.39	578.87	2,896.91	189.60	6.19	66.60	2,013	33.7	41.5	18.5	438,934	d 17,600	
Turkmenistan	0.13	0.22	0.00	0.02	0.00	X	9	2.2	2.9	1.0	716	45	
Uzbekistan	0.24	1.46	X	0.05	0.00	0.05	12	0.5	0.6	0.2	5,800	X	
Viet Nam	93.08	3.68	493.01	1.20	0.76	2.36	1,329	17.4	39.4	8.8	3,030,000	e 140	
EUROPE (c)	13,738.82	14,573.29	3,543.49	6,290.59	714.47	952.64	13,655	18.5	10.3	5.7	X	105,324	
Albania	3.08	2.26	2.08	0.20	X	0.00	4	1.3	0.8	0.3	1,402	2	
Austria	7.61	157.68	0.42	27.49	0.92	9.85	90	11.2	4.1	2.7	2,300	X	
Belarus	4.25	50.39	3.66	3.95	X	3.68	11	1.0	0.6	0.3	X	X	
Belgium	205.86	523.88	222.73	435.42	5.17	33.33	X	X	X	X	600	156	
Bosnia and Herzegovina	X	2.67	X	0.25	X	0.26	5	1.3	2.6	0.6	X	X	
Bulgaria	7.79	7.37	5.32	5.59	1.66	3.05	28	3.4	2.6	1.3	1,483	e 30	
Croatia	45.57	19.74	5.28	9.69	0.01	10.61	19	4.3	4.4	1.9	50,227	305	
Czech Rep	29.99	78.97	0.25	2.58	0.16	9.95	91	8.8	6.0	3.4	2,065	X	
Denmark	1,956.15	1,153.44	516.69	374.03	220.95	66.29	124	23.5	10.1	6.2	4,792	4,285	
Estonia	91.34	34.55	2.18	1.39	1.21	1.16	27	18.8	12.6	6.9	10,468	186	
Finland	19.09	90.01	0.91	18.38	0.10	20.61	170	33.1	14.7	9.9	6,373	3,838	
France	778.66	2,085.62	267.49	1,093.53	9.87	54.46	1,606	27.5	8.6	5.7	26,522	6,586	
Germany	796.02	1,959.05	83.09	368.93	144.51	161.21	1,038	12.7	6.9	4.1	3,894	2,406	
Greece	173.17	168.37	36.19	92.92	0.69	28.31	280	26.5	12.1	6.5	22,192	18,375	
Hungary	6.87	22.52	0.33	0.97	1.06	25.84	43	4.2	2.6	1.4	4,200	X	
Iceland	943.08	32.90	242.15	13.31	158.36	0.17	25	91.1	f 25.6	16.8	5,635	826	
Ireland	287.01	72.91	94.57	22.09	12.86	16.27	56	15.3	6.3	3.9	7,500	1,353	
Italy	241.18	1,653.86	124.70	932.40	8.05	56.15	1,272	22.2	10.8	5.8	40,236	16,000	
Latvia	90.08	35.75	0.05	1.01	0.93	0.68	27	11.1	9.2	4.5	4,751	d 351	
Lithuania	55.90	59.45	2.85	3.73	1.46	4.19	56	15.0	10.8	4.6	X	131	
Macedonia, FYR	0.04	6.54	0.00	0.08	0.00	1.25	9	4.3	4.5	1.6	8,446	X	
Moldova, Rep	0.52	8.90	0.00	0.00	X	0.00	4	0.9	1.1	0.4	X	X	
Netherlands	939.43	730.94	441.08	331.20	21.38	55.18	236	15.1	7.4	5.0	3,810	1,008	
Norway	3,218.80	334.99	159.19	75.19	70.17	82.95	223	50.7	24.8	15.3	28,129	8,664	
Poland	219.25	259.31	21.59	13.88	17.23	1.43	445	11.5	11.0	5.5	9,178	444	
Portugal	207.11	645.25	54.94	166.30	0.43	7.69	577	58.5	22.8	13.1	28,458	9,265	
Romania	0.62	25.54	1.68	2.23	0.00	13.40	38	1.7	1.5	0.7	19,249	33	
Russian Federation	1,068.02	340.49	332.55	16.08	1.80	5.55	3,240	21.9	15.3	7.7	X	3,584	
Slovakia	2.52	37.25	0.02	0.37	0.02	6.50	28	5.2	3.3	1.6	X	X	
Slovenia	5.36	18.70	0.35	7.94	0.00	2.49	13	6.5	3.3	1.9	175	11	
Spain	993.62	1,729.12	469.96	1,459.71	11.69	50.45	1,618	40.9	18.5	11.3	83,731	15,243	
Sweden	341.70	445.02	21.00	153.70	3.92	2.58	231	26.1	12.2	8.0	3,287	e 1,240	
Switzerland	2.88	282.12	0.37	89.81	0.36	7.16	101	13.9	6.5	4.1	432	X	
Ukraine	67.45	40.77	7.86	5.99	0.05	0.00	435	8.5	8.6	3.5	X	444	
United Kingdom	922.40	1,421.98	421.70	555.85	19.38	173.50	1,240	21.1	10.0	5.7	19,044	9,562	
Yugoslavia	0.73	21.04	0.26	1.05	0.06	34.81	31	2.9	1.5	0.8	1,429	d 5	
MIDDLE EAST & N. AFRICA (c)	552.54	537.78	628.28	46.47	5.43	115.76	2,473	6.5	X	X	X	21,990	
Afghanistan	X	X	X	X	X	X	1	0.1	0.2	0.0	X	X	
Algeria	0.64	7.80	2.40	0.32	X	0.00	103	3.5	6.7	1.5	24,190	d 2,184	
Egypt	1.15	109.58	1.70	2.17	X	7.88	648	10.0	18.4	3.3	237,496	X	
Iran, Islamic Rep	44.96	7.85	21.19	0.11	X	44.49	310	4.8	7.7	1.9	108,398	900	
Iraq	X	0.81	X	0.00	0.00	0.18	35	1.7	8.3	0.9	X	8	
Israel	9.73	119.29	0.06	2.87	0.00	9.67	135	23.1	9.3	4.7	1,408	d 384	
Jordan	1.17	28.39	0.03	0.62	0.00	0.60	13	2.9	4.0	1.0	504	X	
Kuwait	0.23	9.18	7.18	7.95	X	0.07	20	11.3	5.0	2.6	2,994	917	
Lebanon	X	25.49	X	1.73	0.00	2.64	20	6.5	7.4	2.1	9,825	5	
Libyan Arab Jamahiriya	31.47	10.07	0.30	0.39	X	1.85	31	6.0	6.8	2.0	9,500	d 93	
Morocco	275.50	5.88	438.86	1.86	5.39	3.23	210	7.8	15.1	2.8	109,062	3,052	
Oman	62.27	3.31	5.43	0.72	X	0.23	55	24.1	21.5	9.8	25,575	390	
Saudi Arabia	4.25	85.20	2.29	6.94	0.00	3.67	129	6.6	5.4	2.2	22,213	23	
Syrian Arab Rep	0.11	29.40	0.00	0.34	X	4.77	15	1.0	1.4	0.3	X	5	
Tunisia	19.95	12.45	77.29	0.42	0.00	0.07	84	9.1	13.7	3.1	60,741	17	
Turkey	71.73	40.16	35.12	3.20	0.02	29.80	454	7.2	8.8	2.3	33,614	e 9,710	
United Arab Emirates	16.92	13.92	16.18	5.65	0.01	1.10	66	28.8	13.7	7.2	13,411	4,050	
Yemen	7.44	4.61	11.60	0.02	0.00	X	113	7.0	23.2	4.1	12,134	d 71	

	Trade in Fish and Fishery Products						Food Supply from Fish & Fishery Products						No. of Decked Fishery Vessels (b) 1995
	Fish and Fish Products (million US\$)		Molluscs and Crustaceans (million US\$)		Meals and Solubles (million US\$)		Total (000 metric tons in live weight)	Per Capita (a) (kg per person)	Fish Protein as a Percent of All		No. of Fishers 1996		
	Exports 1995-97	Imports 1995-97	Exports 1995-97	Imports 1995-97	Exports 1995-97	Imports 1995-97			Animal Protein 1997	Protein Supply 1997			
SUB-SAHARAN AFRICA (c)	1,255.82	799.93	503.30	48.76	33.11	46.79	4,122	6.9	X	X	X	3,637	
Angola	4.15	12.08	3.35	0.30	0.47	X	78	6.6	27.1	6.3	30,364	e	580
Benin	0.00	5.34	1.83	0.00	X	0.00	53	9.4	28.5	4.6	53,025		5
Botswana	0.12	5.03	0.02	0.33	0.02	0.12	9	5.7	6.4	2.3	X		X
Burkina Faso	0.00	3.06	0.02	0.01	X	0.00	14	1.2	5.0	0.6	8,000		X
Burundi	0.22	0.28	0.00	0.00	X	X	20	3.2	29.6	1.9	14,077	d	X
Cameroon	0.15	22.49	1.88	0.08	0.00	0.28	128	9.2	25.0	5.8	24,136	e	25
Central African Rep	X	0.36	X	0.01	X	0.00	13	3.9	8.4	2.6	5,400	e	X
Chad	X	0.62	0.00	0.00	0.00	X	48	6.8	19.3	2.9	350,000		X
Congo	0.92	27.55	6.99	0.03	X	0.01	68	25.3	48.8	18.5	2,129		26
Congo, Dem Rep	0.90	51.32	X	0.09	X	0.00	272	5.7	31.0	5.6	100,000		23
Côte d'Ivoire	218.31	182.92	6.96	2.46	0.13	0.05	157	11.1	36.9	6.7	19,707		63
Equatorial Guinea	1.95	1.71	0.09	0.01	X	X	10	22.6	61.9	33.2	6,731		5
Eritrea	0.15	0.01	0.01	0.01	X	X	1	0.3	1.2	0.1	14,500		X
Ethiopia	0.06	0.16	X	0.00	X	X	10	0.2	0.8	0.1	4,000		X
Gabon	0.83	9.70	6.63	0.10	X	0.01	51	44.6	35.0	17.5	X		39
Gambia	1.97	1.05	2.62	0.03	X	0.00	28	23.7	61.7	15.0	1,877		X
Ghana	81.40	16.97	2.22	0.15	X	0.63	420	22.5	63.2	14.9	230,749		500
Guinea	18.24	9.79	4.74	0.04	0.00	0.02	117	16.0	60.2	9.4	10,707		15
Guinea-Bissau	6.27	0.57	2.89	0.02	X	0.00	3	2.7	8.7	1.6	X		8
Kenya	42.07	8.88	5.17	0.02	0.01	0.46	135	4.8	9.7	2.9	43,488	d	32
Lesotho	X	X	X	0.00	X	X	X	X	X	X	X		X
Liberia	0.01	1.94	0.00	0.07	X	X	12	4.9	23.0	4.2	4,239		14
Madagascar	24.81	11.43	76.84	0.03	0.39	0.03	111	7.6	16.9	4.8	142,666		65
Malawi	0.30	0.26	0.08	0.02	0.00	0.36	57	5.7	37.7	3.1	42,271		57
Mali	0.42	1.00	X	0.00	X	X	99	9.5	16.1	4.2	70,000		X
Mauritania	23.26	1.16	104.59	0.02	X	0.00	35	14.2	13.0	5.1	6,700	d	126
Mozambique	1.67	7.11	73.54	0.01	X	0.16	36	2.0	19.2	1.8	X		291
Namibia	220.45	X	X	X	24.71	X	20	12.4	16.8	5.4	X		218
Niger	0.13	1.03	0.08	0.04	X	0.01	8	0.8	2.9	0.4	X		X
Nigeria	3.36	211.77	19.89	0.24	X	1.02	602	5.8	21.6	2.8	437,702		318
Rwanda	X	0.07	X	0.00	X	X	3	0.6	4.2	0.4	4,500		X
Senegal	221.85	15.94	73.36	0.20	3.46	0.02	318	36.3	47.4	16.1	60,417		180
Sierra Leone	16.28	3.18	9.90	0.01	X	X	59	13.4	63.0	11.6	16,722	d	27
Somalia	4.08	0.02	3.55	X	X	X	12	1.3	1.3	0.9	X		12
South Africa	150.75	48.92	68.00	25.31	2.34	39.40	304	7.8	9.2	3.1	X		600
Sudan	0.10	0.08	0.00	0.01	X	0.08	48	1.7	1.9	0.7	22,950		X
Tanzania, United Rep	53.63	1.95	8.94	0.00	0.17	0.15	323	10.3	33.6	7.0	62,593		30
Togo	1.95	24.46	4.98	0.22	X	0.00	74	17.3	50.2	8.3	17,060		3
Uganda	38.49	0.04	X	0.00	0.00	X	195	9.8	30.0	6.5	X		X
Zambia	0.33	0.68	0.06	0.00	0.00	0.21	71	8.2	22.8	4.6	23,833		235
Zimbabwe	1.84	16.56	0.01	1.20	0.00	0.88	37	3.3	10.0	1.9	X		X
NORTH AMERICA (c)	3,139.97	4,047.00	1,814.10	4,927.18	66.15	77.48	6,313	20.9	X	X	X		45,480
Canada	1,200.30	583.14	1,063.81	516.72	6.63	40.91	657	21.7	9.9	5.6	84,775	d	18,280
United States	1,939.68	3,463.86	750.29	4,410.46	59.52	36.57	5,657	20.8	6.8	4.3	X		27,200
C. AMERICA & CARIBBEAN (c)	397.82	286.10	1,185.90	66.28	13.74	15.23	1,472	8.9	X	X	X		7,161
Belize	0.26	0.23	15.23	0.52	X	0.00	2	7.2	6.8	2.9	X		12
Costa Rica	175.74	33.44	69.80	3.49	0.11	0.32	24	6.4	5.9	2.3	X		1,003
Cuba	1.88	20.45	105.69	0.43	1.09	0.00	140	12.6	16.4	6.1	X		1,250
Dominican Rep	0.16	44.61	1.02	0.48	X	0.01	70	8.6	10.6	5.1	X		X
El Salvador	2.94	5.08	34.35	0.34	0.00	0.11	14	2.3	3.9	1.0	X		80
Guatemala	1.03	3.43	22.35	0.76	0.00	1.53	13	1.2	2.6	0.6	25,975		85
Haiti	5.97	6.35	3.83	0.01	X	0.00	20	2.6	12.1	1.8	X		1
Honduras	3.66	2.47	58.19	5.31	0.03	1.63	21	3.5	5.5	1.8	X		280
Jamaica	4.54	34.59	13.44	1.34	X	0.03	29	11.7	12.6	6.1	8,204		5
Mexico	124.65	39.85	626.44	27.99	8.02	10.99	1,025	10.9	9.5	3.9	257,206		3,100
Nicaragua	14.92	2.44	54.88	0.32	0.03	0.06	6	1.3	3.2	0.8	13,608		280
Panama	44.76	12.08	119.77	1.74	4.45	0.49	36	13.3	11.8	6.3	9,374		695
Trinidad and Tobago	9.49	6.17	1.99	0.21	X	0.00	16	12.4	16.0	6.3	13,646		19
SOUTH AMERICA (c)	2,201.34	688.25	1,782.32	48.23	1,290.72	37.09	3,307	10.0	7.3	3.6	X		13,106
Argentina	521.24	63.32	397.30	18.36	6.49	0.06	349	9.8	4.7	2.9	12,320		800
Bolivia	0.09	3.09	X	0.27	X	0.02	13	1.7	1.9	0.8	7,754	d	X
Brazil	49.81	463.08	76.68	9.11	1.23	0.46	1,120	6.8	4.7	2.4	X		1,450
Chile	967.87	27.61	200.06	5.00	504.59	0.35	296	20.2	12.4	6.1	80,730		563
Colombia	113.64	80.42	96.58	7.63	0.03	22.45	204	5.1	5.8	2.6	200,410		167
Ecuador	282.75	8.67	789.49	1.62	29.45	5.91	91	7.6	9.0	4.1	162,870		515
Guyana	5.38	1.01	21.81	0.03	X	X	54	64.2	51.4	24.5	4,563	d	55
Paraguay	0.09	3.13	X	0.43	0.00	0.00	31	6.0	4.3	2.3	5,500	d	X
Peru	115.80	6.82	109.46	1.21	747.56	0.00	652	26.8	26.1	10.1	63,973		7,710
Suriname	9.86	3.30	3.07	0.41	X	0.01	9	22.0	26.7	10.9	X		22
Uruguay	97.83	9.21	14.87	1.67	0.49	0.70	26	8.0	5.2	3.3	3,404	d	958
Venezuela	34.58	17.06	61.63	2.24	0.89	7.10	458	20.1	20.4	10.1	39,621		866
OCEANIA (c)	751.92	350.07	943.58	212.88	24.28	23.77	579	19.9	9.1	5.5	X		1,917
Australia	151.27	271.66	667.48	190.01	4.52	13.06	338	18.4	6.5	4.1	15,800	e	246
Fiji	31.68	20.07	3.95	0.80	0.06	0.34	26	32.9	21.4	9.1	59,500	d	X
New Zealand	501.57	20.09	247.49	14.80	19.59	9.95	91	24.1	9.8	6.3	2,499		1,375
Papua New Guinea	3.76	17.48	12.88	0.29	0.05	0.32	63	13.9	28.0	9.0	16,000		35
Solomon Islands	45.79	0.08	1.04	0.03	0.06	0.00	14	34.5	73.4	24.3	51,250		130
DEVELOPED (c)	18,176.14	27,309.92	6,634.26	18,049.45	814.17	1,383.87	29,304	22.5	12.3	6.9	X		516,259
DEVELOPING (c)	12,101.39	5,638.48	12,247.08	2,277.39	1,382.95	1,114.30	64,490	14.2	20.0	5.7	X		740,322

Notes: a. Per capita values are expressed on a live-weight equivalent basis, which means that all parts of the fish, including bones, are taken into account when estimating consumption of fish and fishery products. b. Includes fishing vessels such as trawlers, long liners, etc., and nonfishing vessels such as motherships, fish carriers, etc. c. Regional totals for food and protein supply from fish and fishery products were calculated by the Food and Agriculture Organization of the United Nations. d. Data are for 1994. e. Data are for 1995. f. Per capita fish consumption in Iceland includes quantities of fish and fish products destined for the export market.

Source: Food and Agriculture Organization of the United Nations

	Area of			Claimed Exclusive Economic Zone (000 km ²)	Exclusive Fishing Zone (000 km ²)	Population Within 100 km from the Coast (percent)	Coastal Biodiversity (1990s)				Number of Scleractinia Coral Genera (c)	International Legal Net Trade in Live Coral 1997 (d)
	Coastal Length (a) (km)	Continental Shelf (up to 200 m depth) (000 km ²)	Territorial Sea (up to 12 nm) (000 km ²)				Mangroves (b)		Number of Seagrass Species			
							Area (km ²)	Protected (km ²)		Number of Species		
WORLD	1,634,701	24,287.1	18,816.9	e 102,108.4	12,885.2	39.0	181,077	22,617	70	58	f	X 1,045,123
ASIA (EXCL. MIDDLE EAST)	288,459	5,515.4	5,730.9	11,844.2	249.5	X	75,173	10,705	51	27	79	(773,430)
Armenia	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Azerbaijan (g)	871	78.0	X	X	X	55.7	X	X	X	X	X	X
Bangladesh	3,306	59.6	40.3	39.9	X	54.8	5,767	367	21	X	X	X
Bhutan	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Cambodia	1,127	34.6	19.9	X	X	23.8	851	310	5	1	X	X
China	30,017	810.4	h 348.1	X	X	24.0	366	0	23	i	5	36
Georgia	376	2.7	6.1	18.9	X	38.8	X	X	X	X	X	X
India	17,181	372.4	193.8	2,103.4	X	26.3	6,700	1,506	28	12	59	X
Indonesia	95,181	1,847.7	3,205.7	2,915.0	X	95.9	42,550	7,834	45	12	77	(787,045)
Japan	29,020	304.2	373.8	3,648.4	X	96.3	4	0	11	8	75	38,636
Kazakhstan (g)	4,528	139.1	X	X	X	3.6	X	X	X	X	X	X
Korea, Dem People's Rep	4,009	26.3	12.7	72.8	X	92.9	X	X	X	X	X	X
Korea, Rep	12,478	226.3	81.1	202.6	X	100.0	X	X	X	X	X	13,609
Kyrgyzstan	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Lao People's Dem Rep	0	0.0	X	X	X	5.6	X	X	X	X	X	X
Malaysia	9,323	335.9	152.4	198.2	X	98.0	6,424	109	36	9	72	(130)
Mongolia	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Myanmar	14,708	216.4	154.8	358.5	X	49.0	3,786	0	24	3	67	X
Nepal	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Pakistan	2,599	43.7	31.4	201.5	X	9.1	1,683	290	4	X	X	X
Philippines	33,900	244.5	679.8	293.8	X	100.0	1,607	0	30	19	74	(3,785)
Singapore	268	0.7	0.7	X	0.7	100.0	6	X	31	j	11	66
Sri Lanka	2,825	19.2	30.5	500.8	X	100.0	89	8	23	7	45	X
Tajikistan	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Thailand	7,066	185.4	75.9	176.5	X	38.7	2,641	256	35	14	68	(41,448)
Turkmenistan (g)	1,289	72.4	X	X	X	8.1	X	X	X	X	X	X
Uzbekistan	1,707	26.1	X	X	X	2.6	X	X	X	X	X	X
Viet Nam	11,409	352.4	158.6	237.8	X	82.8	2,525	16	29	9	1	(37)
EUROPE	325,892	6,316.0	2,589.4	11,447.1	1,783.0	X	0	0	0	9	X	162,425
Albania	649	6.1	h 6.2	X	6.2	97.1	X	X	X	X	X	X
Austria	0	0.0	X	X	X	2.2	X	X	X	X	X	1,081
Belarus	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Belgium	76	3.6	1.5	X	2.1	83.0	X	X	X	X	X	1,122
Bosnia and Herzegovina	23	0.0	X	X	X	46.6	X	X	X	X	X	X
Bulgaria	457	10.9	6.5	25.7	X	29.2	X	X	X	1	X	X
Croatia	5,663	44.9	h 31.7	X	X	37.9	X	X	X	X	X	X
Czech Rep	0	0.0	X	X	X	0.0	X	X	X	X	X	520
Denmark (k)	5,316	102.4	24.8	80.4	X	100.0	X	X	X	X	X	2,101
Estonia	2,956	36.2	24.3	11.6	X	85.9	X	X	X	X	X	X
Finland	31,119	82.5	h 55.1	X	55.1	72.8	X	X	X	1	X	490
France	7,330	160.7	73.4	706.4	73.4	39.6	X	X	X	4	X	60,779
Germany	3,624	55.5	18.4	37.4	X	14.6	X	X	X	X	X	50,198
Greece	15,147	94.3	h 114.9	X	114.9	99.2	X	X	X	4	X	X
Hungary	0	0.0	X	X	X	0.0	X	X	X	X	X	132
Iceland	8,506	108.7	73.0	678.7	X	99.9	X	X	X	X	X	X
Ireland	6,437	151.9	39.4	X	358.9	99.9	X	X	X	X	X	X
Italy	9,226	110.8	h 155.6	X	155.6	79.1	X	X	X	3	X	13,475
Latvia	565	28.0	12.6	15.6	X	75.2	X	X	X	X	X	X
Lithuania	258	5.7	2.0	3.6	X	22.9	X	X	X	X	X	X
Macedonia, FYR	0	0.0	X	X	X	14.3	X	X	X	X	X	X
Moldova, Rep	0	0.0	X	X	X	9.1	X	X	X	1	X	X
Netherlands	1,914	64.0	13.2	X	50.3	93.4	X	X	X	X	X	16,294
Norway	53,199	218.5	111.2	1,095.1	X	95.4	X	X	X	2	X	470
Poland	1,032	30.0	10.6	19.4	X	13.5	X	X	X	1	X	X
Portugal	2,830	20.1	64.1	1,656.4	X	92.7	X	X	X	3	X	X
Romania	696	18.6	5.3	18.0	X	6.3	X	X	X	X	X	X
Russian Federation (g)	110,310	4,137.0	1,318.1	6,255.8	X	14.9	X	X	X	X	X	(18)
Slovakia	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Slovenia	41	0.2	0.2	X	X	60.6	X	X	X	X	X	X
Spain	7,268	62.1	115.8	683.2	205.2	67.9	X	X	X	3	1	2,383
Sweden	26,384	153.8	85.3	73.2	X	87.7	X	X	X	2	X	1,577
Switzerland	0	0.0	X	X	X	0.0	X	X	X	X	X	3,016
Ukraine	4,953	78.0	53.9	86.4	X	20.9	X	X	X	7	X	X
United Kingdom	19,717	522.6	168.1	X	753.8	98.6	X	X	X	2	X	8,805
Yugoslavia	X	3.1	h X	X	X	8.1	X	X	X	X	X	X
MIDDLE EAST & N. AFRICA	47,282	786.5	649.7	e 2,016.0	196.0	X	1,492	0	3	13	63	2
Afghanistan	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Algeria	1,557	9.7	27.9	X	60.5	68.8	X	X	X	3	X	X
Egypt	5,898	50.1	57.0	185.3	X	53.1	861	0	2	9	57	X
Iran, Islamic Rep (g)	5,890	160.2	76.4	129.7	X	23.9	207	0	2	X	27	X
Iraq	105	1.0	h 0.7	X	X	5.7	X	X	X	X	X	X
Israel	205	3.2	h 4.1	X	X	96.6	X	X	X	4	51	2
Jordan	27	0.1	0.1	X	0.1	29.0	X	X	X	X	44	X
Kuwait	756	6.5	h 5.4	X	X	100.0	X	X	X	2	23	X
Lebanon	294	1.2	4.7	X	X	100.0	X	X	X	X	X	X
Libyan Arab Jamahiriya	2,025	63.6	h,l 38.1	e 222.4	20.9	78.7	X	X	X	1	X	X
Morocco	2,008	70.4	37.5	328.4	X	65.1	X	X	X	1	X	X
Oman	2,809	46.7	51.8	487.4	X	88.5	20	X	1	X	40	X
Saudi Arabia	7,572	95.6	h 82.0	X	X	30.2	292	X	3	5	54	X
Syrian Arab Rep	212	0.9	l 3.9	e X	X	34.5	X	X	X	1	X	X
Tunisia	1,927	65.3	h 36.8	X	X	84.0	X	X	X	3	X	X
Turkey	8,140	53.3	81.0	176.6	81.0	57.5	X	X	X	3	X	X
United Arab Emirates	2,871	51.4	31.0	21.2	X	84.9	30	X	1	1	28	X
Yemen	3,149	65.3	82.4	465.0	X	63.5	81	X	2	8	51	X

	Coastal Length (a) (km)	Area of Continental Shelf (up to 200 m depth) (000 km ²)	Territorial Sea (up to 12 nm) (000 km ²)	Claimed Exclusive Economic Zone (000 km ²)	Exclusive Fishing Zone (000 km ²)	Population Within 100 km from the Coast (percent)	Coastal Biodiversity (1990s)					International Legal Net Trade in Live Coral 1997 (d) (no. of pieces)
							Mangroves (b)			Number of Seagrass Species	Number of Scleractinia Coral Genera (c)	
							Area (km ²)	Protected (km ²)	Number of Species			
SUB-SAHARAN AFRICA	63,124	987.0	871.9	7,866.1	3,111.1	X	36,512	548	17	15	68	(202)
Angola	2,252	44.2	34.7	X	438.0	29.4	1,250	0	7	X	2	X
Benin	153	2.8	2.5	X	26.8	62.4	17	0	6	X	X	X
Botswana	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Burkina Faso	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Burundi	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Cameroon	1,799	13.1	8.5	10.9	X	21.9	2,494	44	8	X	1	X
Central African Rep	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Chad	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Congo	205	7.4	3.5	X	41.4	24.5	120	143	2	X	X	X
Congo, Dem Rep	177	0.8	1.0	X	121.0	2.7	226	0	6	X	X	X
Côte d'Ivoire	797	8.6	12.3	157.4	X	39.7	644	0	4	X	1	X
Equatorial Guinea	603	8.6	12.9	291.4	X	72.3	277	0	2	X	2	X
Eritrea	3,446	47.5	39.2	X	X	73.5	581	0	3	X	56	X
Ethiopia	0	0.0	X	X	X	1.4	X	X	X	X	X	X
Gabon	2,019	36.8	19.6	180.7	X	62.8	2,500	44	7	X	2	X
Gambia	503	5.7	2.3	20.5	X	90.8	497	24	7	X	X	X
Ghana	758	18.1	11.9	216.9	X	42.5	100	0	6	X	1	X
Guinea	1,614	49.7	14.2	97.0	X	40.9	2,963	0	7	X	1	X
Guinea-Bissau	3,176	37.2	19.5	86.7	X	94.6	2,484	0	6	X	X	X
Kenya	1,586	8.5	12.4	104.1	X	7.6	530	0	8	9	54	X
Lesotho	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Liberia	842	14.9	12.7	X	239.1	57.9	190	0	5	X	1	X
Madagascar	9,935	96.7	124.9	1,079.7	X	55.1	3,403	6	9	8	58	(155)
Malawi	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Mali	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Mauritania	1,268	28.4	19.5	141.3	X	39.6	1	X	3	1	X	X
Mozambique	6,942	73.3	70.9	493.7	X	59.0	925	211	10	8	49	X
Namibia	1,754	95.0	32.7	536.8	X	4.7	X	X	X	X	X	(30)
Niger	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Nigeria	3,122	41.8	19.3	164.1	X	25.7	10,515	2	8	X	X	X
Rwanda	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Senegal	1,327	21.0	11.5	147.2	X	83.2	1,853	45	7	X	2	X
Sierra Leone	1,677	23.2	11.2	X	155.9	54.7	1,838	14	6	1	1	X
Somalia	3,898	40.4	68.8	X	759.3	54.8	910	0	6	4	50	X
South Africa	3,751	160.9	74.7	X	1,450.6	38.9	11	0	6	3	8	(1)
Sudan	2,245	15.9	32.6	X	X	2.8	937	0	3	2	56	X
Tanzania, United Rep	3,461	17.9	36.6	204.3	X	21.1	1,155	14	10	7	57	X
Togo	53	0.6	1.0	10.8	X	44.6	26	0	2	X	X	(16)
Uganda	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Zambia	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Zimbabwe	0	0.0	X	X	X	0.0	X	X	X	X	X	X
NORTH AMERICA	398,835	5,107.5	3,484.1	11,084.4	X	X	1,990	1,195	X	10	37	819,118
Canada	265,523	2,877.6	2,687.7	3,006.2	X	23.9	X	X	X	2	X	11,430
United States	133,312	2,229.9	796.4	8,078.2	X	43.3	1,990	1,195	6	10	37	807,688
C. AMERICA & CARIBBEAN	73,703	806.6	1,050.0	6,489.0	197.2	X	22,759	2,149	13	9	30	616
Belize	1,996	8.7	18.5	12.8	X	100.0	719	29	5	X	24	X
Costa Rica	2,069	14.8	24.2	542.1	X	100.0	370	10	9	1	28	X
Cuba	14,519	51.0	122.8	222.2	X	100.0	7,848	538	5	4	25	X
Dominican Rep	1,612	5.9	14.0	246.5	X	100.0	325	362	6	4	25	49
El Salvador	756	17.7	6.6	X	87.5	98.8	268	0	6	X	X	X
Guatemala	445	13.0	7.7	104.5	X	61.2	161	27	5	X	X	(1)
Haiti	1,977	5.9	40.1	86.4	X	99.6	134	0	6	X	25	X
Honduras	1,878	58.8	36.5	201.2	X	65.5	1,458	974	5	1	25	X
Jamaica	895	5.6	16.0	234.8	X	100.0	106	9	5	3	25	X
Mexico	23,761	393.3	291.6	2,997.7	X	28.7	5,315	0	5	6	25	558
Nicaragua	1,915	68.6	31.6	X	94.9	71.6	1,718	140	9	1	25	X
Panama	5,637	44.2	57.8	274.6	X	100.0	1,814	38	12	3	24	X
Trinidad and Tobago	704	22.6	13.0	60.7	X	100.0	>70	3	7	2	25	X
SOUTH AMERICA	144,567	2,203.0	1,030.0	9,358.8	1,814.1	X	24,084	9,397	12	2	32	(389)
Argentina	8,397	798.5	142.5	925.4	X	45.1	X	X	X	X	X	116
Bolivia	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Brazil	33,379	711.5	218.1	3,442.5	X	48.6	13,400	3,811	7	1	19	3,187
Chile	78,563	218.9	271.9	3,415.9	X	81.5	X	X	X	1	7	X
Colombia	5,874	16.2	44.0	706.1	X	29.9	3,659	817	11	X	X	8
Ecuador	4,597	31.5	107.3	X	957.0	60.5	2,469	337	7	m	10	(3,700)
Guyana	1,154	48.8	10.9	122.0	X	76.6	800	0	5	X	X	X
Paraguay	0	0.0	X	X	X	0.0	X	X	X	X	X	X
Peru	3,362	84.8	59.6	X	746.5	57.2	51	0	5	X	X	X
Suriname	620	56.9	9.0	119.1	X	87.0	1,150	391	4	X	X	X
Uruguay	1,096	68.8	22.5	110.5	110.5	78.5	X	X	X	X	X	X
Venezuela	6,762	123.6	136.0	385.7	X	73.1	2,500	4,041	7	4	25	X
OCEANIA	137,772	2,565.0	2,830.4	30,155.0	X	X	18,788	3,614	46	22	76	(208,359)
Australia	66,530	2,065.2	773.1	6,664.1	X	89.8	11,500	2,544	39	21	75	292
Fiji	4,637	19.5	162.2	1,055.0	X	99.9	385	0	9	5	56	(131,221)
New Zealand	17,209	247.8	176.6	3,887.4	X	100.0	287	0	1	1	16	248
Papua New Guinea	20,197	132.4	752.3	1,613.8	X	61.2	5,399	1,063	44	7	73	X
Solomon Islands	9,880	25.9	212.3	1,377.1	X	100.0	642	0	22	3	68	(49,192)
DEVELOPED	850,213	14,523.2	7,482.0	36,750.3	3,233.6	X	13,792	3,739	X	X	X	1,020,720
DEVELOPING	629,421	9,763.8	10,754.3	53,510.2	4,117.3	X	167,007	23,868	X	X	X	(1,020,939)

Notes: a. Figures should be interpreted as approximations because of the difficulty of measuring coastline length. Estimates may differ from other published sources. b. "X" signifies that either the country has no mangroves or data are not available. c. "Scleractinia" corals are reef-forming corals (i.e., true or stony corals). d. Refers to trade as reported by CITES. Figures show the balance of imports minus exports. Exports are shown as negative balances (in parentheses). World totals reflect total number of coral colonies traded. e. Excludes excessive territorial seas claims. For the world, the area of territorial seas in dispute is 2,867,050 square kilometers. f. Total is from J.E. Maragos et al. (eds.), 1995. g. No areas claimed in the Caspian Sea have been included. h. Includes continental shelf area of the potential exclusive economic zone even though the country may have not claimed it. i. Includes Taiwan. j. This figure is based on relatively old data, therefore it is likely that many of these species are now extinct in Singapore. k. Excludes Greenland. l. The breadth of the territorial sea is disputed. m. Number of mangrove species for Ecuador excludes the Galapagos, which has four species.

Source: Various

	Average Marine Fish Production (a) (000 metric tons)								Average Marine Production (a,d)				Status of the Fisheries in (e)	Fully Fished by:	Discards (as a % of overall catch (f))
	Demersal Fishes (b)				Pelagic Fishes (c)				(000 metric tons)						
	1965-67	1975-77	1985-87	1995-97	1965-67	1975-77	1985-87	1995-97	1965-67	1975-77	1985-87	1995-97			
WORLD	12,391	18,507	20,856	19,499	25,293	27,358	37,835	42,917	47,480	60,102	79,061	93,643	X	1999	25
ATLANTIC OCEAN (g)	7,816	9,009	8,718	7,445	9,181	12,305	9,864	10,528	19,420	24,427	23,179	22,625	I-F	1983	25
Northeast Atlantic	3,771	5,732	5,318	5,064	5,345	5,945	4,074	5,466	9,875	12,578	10,667	11,748	Ov	1983	19
Northwest Atlantic	2,664	1,385	1,353	330	640	1,160	677	666	3,941	3,351	2,964	2,031	Ov	1971	27
Eastern Central Atlantic	219	447	385	347	671	2,419	2,100	2,532	1,257	3,434	3,051	3,412	Ov	1984	10
Western Central Atlantic	129	166	142	182	629	757	1,123	866	1,200	1,502	2,137	1,832	Ov	1987	14
Southeast Atlantic	525	788	606	351	1,716	1,780	1,607	744	2,372	2,671	2,325	1,138	Ov	1978	27
Southwest Atlantic	508	490	914	1,172	179	245	283	255	775	891	2,035	2,464	I	1997	14
PACIFIC OCEAN (g)	3,953	8,481	10,910	10,078	14,638	13,044	24,783	28,356	24,969	30,783	48,276	60,824	I-F	1999	24
Northeast Pacific	979	1,590	2,470	2,158	168	130	84	88	1,362	1,961	2,803	2,512	Ov	1990	26
Northwest Pacific	2,395	5,814	7,002	5,584	3,548	5,213	9,345	7,587	10,375	17,613	25,142	30,327	I	1998	22
Eastern Central Pacific	40	68	66	96	366	946	1,312	921	568	1,151	1,678	1,632	Ov	1988	27
Western Central Pacific	339	612	763	1,124	942	2,076	3,051	4,467	2,680	4,659	6,489	9,275	I	2003	33
Southeast Pacific	153	229	305	642	9,538	4,566	10,822	15,160	9,826	5,022	11,546	16,248	I	2001	21
Southwest Pacific	45	167	304	475	76	113	170	132	159	377	616	830	Ov	1991	15
INDIAN OCEAN (g)	423	754	871	1,554	953	1,270	1,945	2,966	2,147	3,512	5,215	7,968	I	X	26
Eastern Indian	100	196	293	523	250	376	720	1,148	875	1,500	2,536	3,938	I	2037	30
Western Indian	323	557	578	1,031	703	894	1,225	1,817	1,272	2,012	2,679	4,030	I	2051	22
MEDITERRANEAN AND THE BLACK SEA	193	180	282	337	518	724	1,207	984	933	1,216	1,887	1,827	F	X	25
ANTARCTIC (g)	5	83	73	11	0	0	1	0	5	136	414	113	Ov	1980	10
ARCTIC	0	0	0	0	X	X	X	X	0	0	0	0	X	X	X

Notes: a. Production includes capture and aquaculture. b. Demersal or bottom-dwelling fish species include flounders, halibuts, soles, cods, hakes, haddocks, redfishes, basses, congers, sharks, rays, and chimeras. c. Pelagic fish are those that live in ocean surface waters or open seas. Pelagic fish species include jacks, mullets, sauries, herrings, sardines, anchovies, tunas, bonitos, billfishes, mackerels, snooks, and cutlassfishes. d. Marine production includes marine fish (except diadromous fish), marine crustaceans, and marine molluscs. e. Status assessed by FAO: Ov = overfished; F = fully fished; and I = catch is increasing. f. Refers to the percentage of the overall catch (discards plus landings) that consisted of nontarget or low-value species and undersized fish of targeted species. g. Ocean totals, except for the Antarctic, do not include the Antarctic regions. Antarctic portions of the Atlantic, Indian, and Pacific Oceans are included in the regional total for the Antarctic.

Source: Food and Agriculture Organization of the United Nations

	Index of Agricultural Production (1989-91 = 100)				Average Cereal Crop Yields		Average Production of Cereals		Average Roots and Tubers Crop Yields		Average Production of Roots and Tubers		Average Meat Production	
	Total		Per Capita		(kg per hectare)	Percent Change Since 1986-88	(000 metric tons)	Percent Change Since 1986-88	(kg per hectare)	Percent Change Since 1986-88	(000 metric tons)	Percent Change Since 1986-88	(000 metric tons)	Percent Change Since 1986-88
	1986-88	1996-98	1986-88	1996-98										
	94	115	98	104	2,949	17	2,074,498	17	12,958	3.1	638,438	13	214,557	46
WORLD	X	X	X	X	X	X	932,868	X	X	X	259,954	X	77,147	X
ASIA (EXCL. MIDDLE EAST)	X	X	X	X	X	X	932,868	X	X	X	259,954	X	77,147	X
Armenia	X	76	X	74	1,772	X	335	X	12,529	X	403	X	45	X
Azerbaijan	X	57	X	53	1,647	X	1,017	X	9,328	X	249	X	92	X
Bangladesh	91	111	96	100	2,705	23	29,883	23	10,870	4.5	1,930	12	409	72
Bhutan	101	107	108	95	1,097	(8)	112	(16)	10,750	26.7	56	2	8	21
Cambodia	87	131	95	108	1,785	24	3,496	60	5,114	(9.8)	108	(25)	164	103
China (a)	88	149	92	139	4,837	23	448,904	27	17,308	14.6	170,478	22	53,747	191
Georgia	X	72	X	73	X	X	730	X	X	X	331	X	125	X
India	87	121	93	107	2,204	34	220,841	31	16,906	16.3	29,909	59	4,604	57
Indonesia	89	120	93	108	3,915	10	59,029	27	11,663	6.9	18,804	9	1,974	113
Japan	103	95	104	93	6,023	6	12,995	(12)	26,265	2.9	4,937	(17)	3,081	(20)
Kazakhstan	X	56	X	56	670	X	9,985	X	8,255	X	1,464	X	740	X
Korea, Dem People's Rep	X	X	103	63	2,251	(50)	3,142	(59)	11,213	(16.4)	684	(32)	146	(76)
Korea, Rep	95	123	98	115	6,589	12	7,748	(12)	21,346	(1.2)	997	(7)	1,614	158
Kyrgyzstan	X	93	X	91	X	X	1,609	X	X	X	655	X	187	X
Lao People's Dem Rep	83	122	92	99	2,642	26	1,670	32	7,055	(16.1)	197	(10)	71	103
Malaysia	86	118	93	100	X	X	2,019	14	X	X	488	(0)	989	160
Mongolia	95	89	104	77	687	(45)	218	(72)	7,636	(27.6)	55	(57)	243	6
Myanmar	110	139	116	123	2,947	4	17,938	26	9,667	0.0	317	13	382	26
Nepal	86	117	93	97	1,959	18	6,416	37	7,958	41.5	1,101	89	220	40
Pakistan	86	129	95	107	2,077	21	25,787	32	13,578	22.5	1,556	78	2,083	133
Philippines	93	121	99	104	2,336	24	14,563	10	6,728	1.0	2,767	2	1,848	182
Singapore	123	32	131	28	X	X	X	X	X	X	0	(94)	151	11
Sri Lanka	101	111	105	103	3,103	5	2,366	(3)	8,508	(8.4)	379	(41)	91	107
Tajikistan	X	57	X	50	1,682	X	510	X	10,268	X	118	X	36	X
Thailand	92	114	96	107	2,481	18	27,652	17	14,314	4.2	17,348	(10)	1,709	69
Turkmenistan	X	72	X	62	1,138	X	735	X	6,917	X	28	X	117	X
Uzbekistan	X	94	X	81	2,279	X	3,690	X	11,908	X	694	X	494	X
Viet Nam	88	143	94	125	3,760	38	29,330	76	7,009	(8.8)	3,894	(25)	1,530	89
EUROPE	X	87 b	X	86 b	3,030 b	X	404,660	X	15,986 b	X	150,050	X	52,170	X
Albania	101	125	106	119	2,584	(12)	592	(42)	10,949	71.0	131	52	59	X
Austria	100	101	101	95	5,659	11	4,746	(8)	29,014	3.4	703	(26)	886	15
Belarus	X	66	X	65	2,204	X	5,327	X	13,112	X	9,274	X	642	X
Belgium (c)	96	114	97	111	X	X	2,502	X	X	X	2,776	X	X	X
Bosnia and Herzegovina	X	39	X	45	2,382	X	479	X	6,744	X	241	X	34	X
Bulgaria	108	66	106	68	2,644	(31)	5,006	(36)	9,677	(5.9)	415	7	470	(58)
Croatia	X	60	X	60	4,733	X	3,050	X	10,063	X	650	X	107	X
Czech Rep	X	80	X	80	4,178	X	6,832	X	20,379	X	1,567	X	841	X
Denmark	92	103	93	101	6,130	23	9,351	21	39,017	10.0	1,569	41	1,904	40
Estonia	X	47	X	51	1,978	X	630	X	11,717	X	417	X	57	X
Finland	94	94	95	91	3,381	41	3,772	33	22,477	33.6	758	7	343	2
France	100	105	102	102	7,109	25	64,578	22	37,017	8.2	6,378	(11)	6,533	27
Germany	102	92	104	89	6,366	26	44,067	21	39,841	40.3	12,446	(35)	6,069	(27)
Greece	95	102	97	99	3,535	(5)	4,621	(15)	18,712	2.0	915	(10)	512	(1)
Hungary	102	76	101	79	4,275	(15)	12,317	(15)	19,410	9.5	1,153	(8)	1,068	(52)
Iceland	113	90	117	84	X	X	X	X	X	X	9	(37)	20	(15)
Ireland	97	107	96	105	6,721	12	1,984	(3)	27,384	20.9	562	(15)	981	46
Italy	101	101	101	100	4,920	27	20,486	13	22,997	22.5	2,113	(14)	4,061	11
Latvia	X	46	X	49	2,123	X	988	X	13,048	X	907	X	73	X
Lithuania	X	70	X	70	2,474	X	2,808	X	15,692	X	1,925	X	193	X
Macedonia, FYR	X	100	X	94	2,721	X	605	X	11,794	X	165	X	37	X
Moldova, Rep	X	55	X	54	2,860	X	2,658	X	X	X	412	X	120	X
Netherlands	99	99	101	94	7,445	12	1,489	24	43,664	2.4	7,919	13	2,864	23
Norway	97	101	98	98	4,041	19	1,346	17	25,195	6.3	453	9	260	31
Poland	99	87	100	85	2,937	(3)	25,911	3	18,741	(1.0)	24,647	(33)	2,904	1
Portugal	85	98	85	98	2,398	38	1,476	(9)	13,867	14.8	1,198	(22)	689	73
Romania	111	93	112	96	2,868	(7)	17,122	(8)	13,157	(1.2)	3,372	(22)	1,168	(39)
Russian Federation	X	63	X	63	1,295	X	67,064	X	10,668	X	35,664	X	4,953	X
Slovakia	X	78	X	77	4,159	X	3,515	X	16,289	X	564	X	386	X
Slovenia	X	100	X	99	5,357	X	542	X	22,081	X	498	X	181	X
Spain	95	109	96	108	3,156	22	21,281	5	21,382	23.2	3,483	(32)	4,355	63
Sweden	96	101	98	98	4,707	24	5,893	12	35,375	16.1	1,226	7	584	23
Switzerland	99	96	102	90	6,709	22	1,271	21	45,385	23.8	0	X	429	(17)
Ukraine	X	55	X	55	2,214	X	27,867	X	11,183	X	17,537	X	1,905	X
United Kingdom	98	100	99	99	6,880	21	23,585	5	41,105	10.4	6,952	4	3,658	14
Yugoslavia	X	102	X	100	3,797	X	8,894	X	8,896	X	1,012	X	1,046	X
MIDDLE EAST & N. AFRICA	X	X	X	X	X	X	91,441	23	X	X	15,862	37	7,430	57
Afghanistan	100	112	105	75	1,363	3	3,694	17	16,786	7.3	235	5	231	X
Algeria	88	127	95	108	980	35	2,934	60	13,835	59.5	1,071	23	511	X
Egypt	91	138	98	121	6,681	37	17,328	86	19,278	(11.4)	2,439	29	1,221	116
Iran, Islamic Rep	90	141	101	117	1,863	X	16,714	X	X	X	3,242	X	1,437	X
Iraq	101	98	110	84	835	(9)	2,497	13	15,813	3.0	403	176	111	(93)
Israel	99	107	105	86	1,776	(22)	144	(43)	40,704	8.0	305	41	323	86
Jordan	91	166	106	123	1,037	22	100	6	28,742	41.8	125	184	115	89
Kuwait	163	163	179	200	X	X	3	(6)	X	X	31	1,664	74	14
Lebanon	80	140	80	115	2,456	43	94	48	22,839	28.0	308	48	101	26
Libyan Arab Jamahiriya	88	129	98	102	820	26	185	(34)	7,323	(1.0)	205	71	170	49
Morocco	83	107	88	93	1,215	(6)	6,947	4	18,694	5.4	1,195	50	510	77
Oman	95	112	108	83	X	X	6	40	X	X	6	89	27	63
Saudi Arabia	77	85	88	69	3,880	(4)	2,273	(25)	14,482	(21.0)	250	649	574	75
Syrian Arab Rep	109	147	121	122	1,543	27	5,182	48	18,879	15.1	419	16	296	63
Tunisia	77	120	82	105	1,240	55	1,863	97	14,165	22.4	311	73	173	49
Turkey	97	111	103	99	2,196	1	30,758	3	24,556	13.4	5,122	21	1,206	12
United Arab Emirates	66	206	74	172	X	X	1	(19)	X	X	4	17	86	118
Yemen	95	122	106	87	974	12	714	(5)	12,712	(21.9)	192	24	144	11

Data Table AF.1 continued

	Index of Agricultural Production (1989-91 = 100)				Average Cereal Crop Yields		Average Production of Cereals		Average Roots and Tubers Crop Yields		Average Production of Roots and Tubers		Average Meat Production	
	Total		Per Capita		(kg per hectare)	Percent Change Since 1986-88	(000 metric tons)	Percent Change Since 1986-88	(kg per hectare)	Percent Change Since 1986-88	(000 metric tons)	Percent Change Since 1986-88	(000 metric tons)	Percent Change Since 1986-88
	1986-88	1996-98	1986-88	1996-98										
	91 b	122 b	99 b	100 b										
SUB-SAHARAN AFRICA	91 b	122 b	99 b	100 b	997 b	2	86,990	25	7,694 b	11.3	132,744	54	7,568	55
Angola	102	127	111	101	642	76	539	55	5,102	32.1	2,909	73	105	X
Benin	82	159	90	130	1,096	37	816	68	9,385	10.6	3,019	84	70	42
Botswana	89	98	99	82	258	5	41	(18)	6,167	14.5	10	38	67	45
Burkina Faso	95	129	103	106	729	6	2,167	16	5,664	(29.4)	65	(52)	122	60
Burundi	98	94	106	80	1,337	10	279	0	6,602	(4.6)	1,378	1	26	3
Cameroon	96	120	104	99	1,274	1	1,222	35	5,777	0.7	2,588	32	202	47
Central African Rep.	95	128	103	110	1,002	(8)	145	(3)	3,724	0.9	1,002	29	85	83
Chad	88	140	93	116	647	4	1,140	71	4,262	(11.5)	611	1	74	35
Congo	99	111	108	91	707	(13)	4	(82)	7,138	0.5	859	10	24	22
Congo, Dem Rep.	91	97	101	76	746	(7)	1,468	16	7,393	(6.7)	17,560	(0)	239	27
Côte d'Ivoire	91	125	101	102	1,102	28	1,775	62	5,752	(0.6)	4,987	24	143	34
Equatorial Guinea	101	94	108	79	X	X	X	X	X	X	85	17	0	20
Eritrea	X	101	X	85	451	X	131	X	2,828	X	110	X	28	X
Ethiopia (d)	94	121	103	97	1,206	9	8,683	56	3,704	2.9	2,058	11	622	153,747
Gabon	92	108	100	88	1,742	11	31	34	5,617	4.8	414	22	30	24
Gambia	106	86	120	67	1,006	(16)	104	6	3,000	0.0	6	0	7	29
Ghana	93	152	102	125	1,365	36	1,751	71	11,027	66.6	11,109	127	140	4
Guinea	85	135	94	103	1,297	32	931	55	6,277	(10.3)	989	99	27	95
Guinea-Bissau	92	117	98	101	1,410	(9)	180	16	7,171	1.5	77	10	17	36
Kenya	92	108	102	89	1,535	(11)	2,850	(10)	7,583	(6.7)	1,976	42	401	26
Lesotho	96	112	104	94	1,011	44	197	15	15,838	4.6	75	118	29	11
Liberia	X	X	137	86	1,262	0	158	(46)	6,840	(12.4)	327	(24)	18	4
Madagascar	95	107	106	85	1,961	7	2,679	14	6,417	0.2	3,333	8	264	23
Malawi	94	115	107	106	1,224	13	1,718	25	4,692	5.2	579	17	49	29
Mali	86	124	94	99	1,004	11	2,203	38	5,003	20.9	30	43	195	55
Mauritania	90	104	97	87	743	(13)	168	12	2,077	8.4	5	(6)	58	6
Mozambique	95	131	98	102	827	86	1,533	135	5,290	28.6	5,375	43	81	8
Namibia	92	123	100	103	315	(18)	105	34	8,570	(1.6)	240	17	71	33
Niger	91	126	100	100	339	(17)	2,263	20	7,541	2.9	268	11	118	57
Nigeria	78	137	85	111	1,207	(1)	22,107	41	10,310	10.7	53,717	157	1,187	89
Rwanda	99	78	104	91	1,188	(3)	210	(29)	6,314	(13.9)	1,386	(13)	29	1
Senegal	99	102	107	85	719	(7)	847	(9)	3,037	(28.6)	51	(35)	159	96
Sierra Leone	97	100	103	90	1,223	(8)	460	(16)	4,667	14.9	352	165	21	25
Somalia	X	X	111	85	410	(47)	269	(53)	9,988	(6.3)	56	21	160	15
South Africa	94	100	100	85	2,220	36	12,104	1	22,068	49.4	1,633	49	1,212	(3)
Sudan	107	156	115	134	602	16	5,458	54	2,707	(4.4)	166	(24)	588	71
Tanzania, United Rep	94	101	103	82	1,261	5	4,026	5	7,436	(9.3)	6,603	(16)	306	37
Togo	87	138	95	113	876	12	679	64	7,064	(9.1)	1,251	58	39	99
Uganda	85	109	92	88	1,248	(8)	1,660	35	4,781	(24.7)	4,397	(12)	220	83
Zambia	93	107	100	91	1,585	(21)	1,171	(23)	5,311	(3.8)	774	98	107	38
Zimbabwe	97	112	106	95	1,283	(7)	2,543	(1)	4,599	(7.6)	190	64	134	10
NORTH AMERICA	93 b	117 b	96 b	109 b	4,744 b	24	394,005	25	35,487 b	16.0	26,397	31	38,405	44
Canada	93	116	97	108	2,737	22	53,020	10	27,091	6.3	4,005	41	3,320	27
United States	94	117	96	110	5,352	22	340,985	28	37,570	18.7	22,392	30	35,085	46
C. AMERICA & CARIBBEAN	X	X	X	X	2,465 b	15	34,246	22	8,063 b	19.9	4,234	15	5,526	41
Belize	87	157	93	131	2,096	22	53	99	21,765	(0.5)	4	6	10	79
Costa Rica	85	124	92	105	3,162	35	219	(31)	23,673	86.9	227	158	178	63
Cuba	99	65	102	62	1,973	(23)	501	(17)	5,783	(1.7)	815	(9)	210	(52)
Dominican Rep	96	105	102	92	3,851	5	544	(2)	6,118	4.2	230	8	299	105
El Salvador	95	107	100	91	1,906	12	821	18	16,719	19.7	92	208	87	51
Guatemala	90	117	98	96	1,882	7	1,152	(17)	5,568	2.3	72	5	191	85
Haiti	106	93	113	81	969	(0)	442	(6)	3,796	0.1	734	(3)	74	17
Honduras	88	117	97	95	1,528	9	772	37	9,316	7.6	33	46	98	68
Jamaica	95	120	96	113	1,227	(15)	3	(39)	16,612	33.8	327	33	82	67
Mexico	99	119	105	105	2,653	18	28,839	27	21,290	52.5	1,441	41	3,911	44
Nicaragua	97	117	103	96	1,611	(9)	637	33	11,295	(4.4)	82	4	90	75
Panama	97	99	103	87	2,164	26	243	(18)	5,816	(24.4)	79	(8)	132	58
Trinidad and Tobago	93	102	96	97	3,628	41	15	58	10,322	10.6	12	38	29	5
SOUTH AMERICA	93 b	122 b	98 b	109 b	2,740 b	34	96,761	20	12,334 b	5.5	45,027	5	21,435	80
Argentina	101	122	105	112	3,260	31	33,639	41	22,822	19.5	3,084	6	3,643	6
Bolivia	85	133	91	112	1,592	21	1,180	39	5,668	(7.2)	1,123	(14)	359	89
Brazil	92	123	97	112	2,458	36	44,725	8	12,754	4.4	26,476	(1)	12,184	124
Chile	84	128	89	115	4,455	32	2,824	2	14,669	4.2	918	12	815	167
Colombia	85	104	90	92	2,798	9	3,378	(1)	12,848	15.0	4,830	29	1,325	59
Ecuador	88	145	95	125	1,746	14	1,858	44	7,650	16.6	678	34	420	129
Guyana	117	185	117	174	3,982	27	551	120	10,280	26.5	46	49	16	154
Paraguay	77	107	85	88	2,365	29	1,470	133	13,762	(11.8)	3,110	(12)	385	82
Peru	100	135	106	120	2,731	12	2,582	17	9,456	13.4	3,662	34	715	66
Suriname	106	88	110	81	3,746	(3)	221	(21)	16,392	73.4	7	142	6	(66)
Uruguay	92	124	94	119	3,370	55	2,090	95	11,627	101.0	194	4	574	63
Venezuela	97	114	105	97	2,952	46	2,212	(7)	11,343	35.0	886	37	991	34
OCEANIA	96 b	118 b	101 b	107 b	2,032 b	29	33,494	46	12,116 b	10.8	3,214	11	4,786	25
Australia	93	120	98	111	1,995	30	32,534	48	31,061	14.7	1,304	27	3,335	31
Fiji	91	98	93	100	2,094	(3)	19	(32)	11,141	107.0	86	87	24	57
New Zealand	104	117	106	108	5,637	26	930	(6)	42,676	44.2	480	69	1,334	11
Papua New Guinea	100	104	106	89	3,840	116	9	272	5,870	(18.6)	1,005	(18)	67	54
Solomon Islands	104	116	116	92	X	(100)	X	(100)	17,236	3.3	126	27	3	7
DEVELOPED	98 b	98 b	100 b	94 b	3,372 b	16	875,983	6	17,436 b	1.7	189,047	(10)	101,697	38
DEVELOPING	90 b	129 b	96 b	114 b	2,701 b	20	1,198,482	26	11,688 b	7.8	448,585	26	112,771	117

Notes: Negative values are shown in parentheses. Zero is either 0 or less than one-half the unit of measure. (0) indicates a value less than 0 and greater than negative one-half. a. Data for China include Taiwan. b. Regional total calculated by the Food and Agriculture Organization of the United Nations. c. Data for Belgium include Luxembourg. d. Data for Ethiopia before 1993 include Eritrea.

Source: Food and Agriculture Organization of the United Nations

	Cropland				Irrigated Land as a Percentage of Cropland		Average Annual Fertilizer Use (kilograms per hectare of cropland)		Pesticide Use (kilograms per hectare of cropland)	Tractors	
	Total Hectares (000)		Hectares Per 1000 People		1987	1997	1985-87	1995-97		Number	Percent Change Since 1987
	1987	1997	1987	1997							
WORLD	1,489,051	1,510,442	297	259	15	18	97	97	X	26,334,690	3
ASIA (EXCL. MIDDLE EAST)	X	482,752	X	147	X	34	X	139	X	5,757,829	X
Armenia	X	559	X	157	X	52	X	14	2	17,500	X
Azerbaijan	X	1,935	X	253	X	75	X	14	X	32,917	X
Bangladesh	9,248	8,241	89	67	24	45	73	138	176 a	5,400	8
Bhutan	130	160	83	82	26	25	1	1	670 a	X	X
Cambodia	3,080	3,807	391	363	7	7	0	2	X	1,190	(1)
China (b)	128,786	135,365	117	109	35	38	150	265	X	703,117	(21)
Georgia	X	1,066	X	208	X	44	X	33	X	16,600	X
India	169,770	169,850	212	176	25	34	52	89	436 c	1,450,000	108
Indonesia	30,644	30,987	176	152	14	16	73	92	88 a	70,000	296
Japan	4,708	4,295	39	34	62 d	63 d	492	440	X	2,210,000	16
Kazakhstan	X	30,135	X	1,840	X	7	X	4	X	108,121	X
Korea, Dem People's Rep	1,980	2,000	101	87	67	73	397	63	X	75,000	7
Korea, Rep	2,143	1,924	51	42	63 d	60 d	448	693	13,829 a	131,358	561
Kyrgyzstan	X	1,425	X	308	X	75	X	22	1,860 c	19,000	X
Lao People's Dem Rep	850	852	224	169	14	19	1	5	57 a	890	9
Malaysia	5,920	7,605	358	362	6	4	125	158	5,982 c	43,300	155
Mongolia	1,336	1,320	658	520	5	6	16	2	X	7,000	(40)
Myanmar	10,060	10,151	259	231	11	15	16	19	16 a	8,036	(24)
Nepal	2,341	2,968	135	133	36	38	24	35	21 e	4,600	28
Pakistan	20,920	21,600	193	150	78	81	77	114	365 e	320,500	60
Philippines	9,020	9,520	158	133	17	16	44	82	X	11,500	59
Singapore	3	1	1	<1	0	0	1,325	3,247	X	65	12
Sri Lanka	1,895	1,888	115	103	28 d	32 d	102	111	6,261 a	6,672	(11)
Tajikistan	X	890	X	150	X	81	X	65	X	30,000	X
Thailand	20,490	20,445	387	342	20	25	28	75	1,116 +	149,500	270
Turkmenistan	X	1,695	X	400	X	106	X	82	6,744 a	50,000	X
Uzbekistan	X	4,850	X	209	X	88	X	109	X	170,000	X
Viet Nam	6,387	7,202	102	94	28	32	76	206	X	115,487	412
EUROPE	X	311,205	X	427	X	8	X	89	X	11,197,796	X
Albania	714	702	229	224	57	48	133	7	435 e	7,900	(26)
Austria	1,513	1,479	199	183	0	0	258	168	2,710 c	352,375	8
Belarus	X	6,319	X	610	X	2	X	157	X	96,300	X
Belgium (g)	681	785	69	78	3	4	1,531	1,475	X	106,667	(9)
Bosnia and Herzegovina	X	650	X	185	X	0	X	11	X	29,000	X
Bulgaria	4,131	4,511	465	538	30	18	220	43	966	25,000	(53)
Croatia	X	1,442	X	322	X	0	X	161	3,060 e	2,985	X
Czech Rep	X	3,331	X	323	X	1	X	107	1,169 e	86,000	X
Denmark	2,588	2,373	506	451	16	20	267	167	2,200 e	141,293	(14)
Estonia	X	1,143	X	790	X	0	X	29	105	50,607	X
Finland	2,292	2,129	464	414	3	3	265	147	410 e	194,750	(19)
France	19,459	19,468	349	333	6	9	303	262	X	1,312,000	(11)
Germany	12,390	12,060	159	147	4	4	413	250	2,085 a	1,215,700	(26)
Greece	3,942	3,915	392	370	30	35	178	133	X	236,100	16
Hungary	5,289	5,047	504	497	3 h	4 h	279	83	2,863 e	92,250	72
Iceland	7	6	28	22	0	0	3,491	3,429	X	10,519	(19)
Ireland	983	1,346	278	368	0	0	713	533	X	167,500	3
Italy	12,070	10,927	212	190	20	25	191	227	19,288 a	1,480,000	13
Latvia	X	1,830	X	744	X	1	X	30	208 e	56,938	X
Lithuania	X	3,006	X	811	X	0	X	41	312 a	77,871	X
Macedonia, FYR	X	658	X	331	X	8	X	67	7,718 a	54,000	X
Moldova, Rep	X	2,183	X	499	X	14	X	54	1,434 a	49,000	X
Netherlands	890	935	61	60	61	60	951	821	11,842 a	173,000	(5)
Norway	869	902	208	205	11	14	413	218	941 i	148,000	(2)
Poland	14,817	14,424	394	373	1	1	237	122	490 e	1,310,500	26
Portugal	3,163	2,900	320	294	20	22	90	84	2,584 c	150,000	23
Romania	10,686	9,900	465	439	31	31	150	41	1,617 c	163,016	(11)
Russian Federation	X	127,962	X	867	X	4	X	17	407 c	886,490	X
Slovakia	X	1,605	X	299	X	12	X	77	4,148 e	25,726	X
Slovenia	X	285	X	143	X	1	X	258	6,389 e	104,751	X
Spain	20,390	19,164	525	484	16	19	95	123	X	841,932	24
Sweden	2,890	2,799	343	316	4	4	164	113	509 a	165,000	(8)
Switzerland	412	444 j	62	61 j	6	6 j	450	258	4,576 e	112,000	4
Ukraine	X	34,081	X	667	X	7	X	26	2,001 c	349,000	X
United Kingdom	7,004	6,425	123	110	2	2	372	343	4,745 c	500,000	(4)
Yugoslavia	X	4,058	X	382	X	2	X	44	887 c	423,130	X
MIDDLE EAST & N. AFRICA	95,025	102,320	320	270	24	27	58	59	X	1,593,873	34
Afghanistan	8,054	8,054	570	385	35	35	10	1	X	840	2
Algeria	7,624	8,040	330	274	4	7	39	8	835 i	92,893	1
Egypt	2,547	3,300	49	51	100	100	362	343	1,293 a	90,000	72
Iran, Islamic Rep	16,530	19,400	322	300	42	37	57	55	1,881 c	235,000	X
Iraq	5,520	5,540	336	262	32	64	35	61	X	49,600	24
Israel	433	437	99	75	48	46	381	360	X	24,500	(15)
Jordan	365	390	84	64	17	19	16	52	2,495 a	4,773	(16)
Kuwait	4	7	2	4	50	71	1,886	(855) k	X	100	(9)
Lebanon	304	308	117	98	28	38	81	188	X	5,610	87
Libyan Arab Jamahiriya	2,130	2,115	525	406	17	22	36	36	X	34,000	24
Morocco	8,532	9,595	378	357	15	13	41	32	X	43,226	29
Oman	53	63	34	27	91	98	45	122	24,125 i	150	15
Saudi Arabia	2,980	3,830	212	197	47	42	152	98	X	9,500	116
Syrian Arab Rep	5,630	5,521	503	369	12	21	42	68	X	87,442	67
Tunisia	4,860	4,900	634	532	6	8	25	25	X	35,100	35
Turkey	27,927	29,162	530	460	12	14	58	66	1,145 a	874,995	38
United Arab Emirates	38	81	22	35	158	89	28	421	X	272	56
Yemen	1,479	1,555	143	95	21	31	10	9	X	5,800	(0)

Data Table AF.2 continued

	Cropland				Irrigated Land as a Percentage of Cropland		Average Annual Fertilizer Use (kilograms per hectare of cropland)		Pesticide Use (kilograms per hectare of cropland)	Tractors	
	Total Hectares (000)		Hectares Per 1000 People		1987	1997	1985-87	1995-97	1996	Number	Percent Change Since 1987
	1987	1997	1987	1997							
SUB-SAHARAN AFRICA	159,495	171,384	349	288	4	4	13	12	X	261,984	(10)
Angola	3,400	3,500	403	299	2	2	4	1	42 a	10,300	0
Benin	1,490	1,595	349	283	0	1	7	22	X	142	18
Botswana	410	346	354	225	0	0	2	9	40 c	6,000	90
Burkina Faso	3,140	3,440	377	313	1	1	5	10	1 e	1,993	564
Burundi	1,180	1,100	235	173	1	1	2	3	268	170	13
Cameroon	7,210	7,160	684	514	0	0	7	5	253 e	500	0
Central African Rep	2,005	2,020	733	591	0	0	1	0	12 e	65	8
Chad	3,205	3,256	599	460	0	1	2	3	223 c	170	3
Congo	179	185	88	68	1	1	17	20	216 f	700	1
Congo, Dem Rep	7,850	7,880	233	164	0	0	1	1	X	2,430	6
Côte d'Ivoire	5,400	7,350	511	523	1	1	7	16	X	3,800	12
Equatorial Guinea	230	230	690	547	0	0	0	0	X	100	0
Eritrea	X	393	X	114	X	7	X	11	X	440	X
Ethiopia	13,930	10,500	299	170	1	2	5	16	34	3,000	(23)
Gabon	452	495	530	435	1	1	5	1	X	1,500	7
Gambia	184	200	228	168	1	1	21	5	46	45	5
Ghana	4,000	4,550	290	244	0	0	3	4	2,333 e	3,570	(13)
Guinea	1,196	1,485	229	203	8	6	1	3	274	542	126
Guinea-Bissau	335	350	367	308	5	5	1	1	83 a	19	6
Kenya	4,490	4,520	211	159	1	1	25	27	X	14,400	20
Lesotho	326	325	203	161	1	1	12	19	X	2,000	18
Liberia	371	327	154	136	1	1	6	0	X	325	2
Madagascar	3,067	3,108	287	213	29	35	3	4	28 e	3,550	26
Malawi	1,610	1,710	199	170	1	2	25	31	X	1,420	4
Mali	2,076	4,650	250	446	3	2	8	8	136 c	2,550	59
Mauritania	345	502	185	204	14	10	4	8	X	380	15
Mozambique	3,090	3,180	225	172	3	3	2	2	X	5,750	0
Namibia	662	820	532	506	1	1	0	0	X a	3,150	9
Niger	3,592	5,000	511	512	1	1	1	2	X	180	14
Nigeria	31,482	30,738	393	296	1	1	10	5	X	30,000	50
Rwanda	1,142	1,150	172	193	0	0	1	0	260 c	90	5
Senegal	2,350	2,266	348	258	4	3	11	12	183	550	17
Sierra Leone	539	546	143	124	5	5	5	6	X	81	(84)
Somalia	1,035	1,061	147	120	17	19	3	0	X	1,845	(11)
South Africa	13,500	16,300	422	421	9	8	63	51	57 e	100,000	(38)
Sudan	12,900	16,900	573	610	15	12	5	4	106	10,500	7
Tanzania, United Rep	3,501	4,000	151	127	4	4	14	9	X	7,600	5
Togo	2,360	2,430	735	567	0	0	4	6	95	80	(18)
Uganda	6,705	6,810	436	340	0	0	0	0	17 e	4,700	18
Zambia	5,208	5,265	775	613	1	1	13	10	317	6,000	7
Zimbabwe	2,814	3,210	313	286	3	5	57	59	531	26,000	63
NORTH AMERICA	233,766	224,700	855	744	8	10	102	134	X	5,511,335	(0)
Canada	45,990	45,700	1,726	1,510	2	2	51	67	644 i	711,335	(4)
United States	187,776	179,000	761	659	10	12	114	151	1,599 a	4,800,000	0
C. AMERICA & CARIBBEAN	39,467	43,408	287	263	17	19	78	58	X	295,669	7
Belize	57	89	327	397	4	3	67	50	17,804 c	1,170	15
Costa Rica	526	505	188	135	22	25	181	322	18,726 e	7,000	11
Cuba	3,670	4,450	356	402	24 m	20 m	186	52	X	78,000	5
Dominican Rep	1,437	1,500	216	185	16	17	58	59	X	2,350	3
El Salvador	777	816	159	138	15	15	103	106	2,642	3,430	1
Guatemala	1,785	1,905	220	181	6	7	68	99	574 c	4,300	4
Haiti	903	910	140	116	8	10	3	9	23 e	136	(35)
Honduras	1,785	2,045	401	342	4	4	16	50	6,521 c	4,900	45
Jamaica	220	274	94	109	15	12	81	85	X	3,080	2
Mexico	25,500	27,300	325	290	20	24	71	54	X	172,000	6
Nicaragua	1,949	2,746	546	587	4	3	33	14	357 e	2,700	9
Panama	615	655	272	241	5	5	54	54	X	5,000	(4)
Trinidad and Tobago	120	122	100	96	18	18	53	203	11,827 a	2,700	3
SOUTH AMERICA	106,536	116,186	381	351	7	9	53	66	X	1,291,323	14
Argentina	27,200	27,200	872	763	6	6	6	28	1,266 e	280,000	14
Bolivia	2,205	2,100	359	270	5	4	3	5	1,514 a	5,700	14
Brazil	54,000	65,300	384	399	4	5	71	78	836 e	805,000	17
Chile	3,313	2,297	266	157	38	55	83	210	3,240 e	53,710	30
Colombia	5,371	4,430	163	111	9	24	83	125	6,134 c	21,000	(39)
Ecuador	2,836	3,001	297	251	11	8	23	48	1,696 e	8,900	9
Guyana	495	496	623	588	26	26	32	29	X	3,630	2
Paraguay	2,088	2,285	543	449	3	3	6	13	1,542 c	16,500	30
Peru	3,790	4,200	186	172	32	42	45	43	X	13,191	6
Suriname	68	67	173	163	84	90	177	93	4,877 f	1,330	8
Uruguay	1,304	1,307	428	400	8	11	45	89	1,316 a	33,000	(5)
Venezuela	3,860	3,490	214	153	4	6	156	86	1,403 c	49,000	7
OCEANIA	52,148	57,766	2,065	1,972	4	5	32	53	X	401,025	(2)
Australia	47,106	53,100	2,918	2,896	4	5	26	43	2,535 c	315,000	(2)
Fiji	210	285	295	362	0	1	93	66	2,333 c	7,000	17
New Zealand	3,844	3,280	1,171	872	7	9	108	216	2,215 e	76,000	(5)
Papua New Guinea	571	670	159	149	0	0	21	19	1,750 e	1,160	1
Solomon Islands	57	60	197	148	0	0	0	0	X	X	X
DEVELOPED	487,736	476,872	397	369	13	14	188	136	X	19,878,769	(5)
DEVELOPING	812,966	853,994	215	189	20	24	64	96	X	6,448,965	36

Notes: Negative values are shown in parentheses. Zero is either 0 or less than one-half the unit of measure. (0) indicates a value less than 0 and greater than negative one-half.

a. Data are from 1993. b. Data for China include Taiwan. c. Data are from 1992. d. Data refer to irrigated rice only. e. Data are from 1995. f. Data are from 1991. g. Data for Belgium include Luxembourg. h. Data exclude complementary farm plots and individual farms. i. Data are from 1994. j. Due to a change in statistical methods, data previous to 1992 should not be compared to data after 1992. k. The export of fertilizer stocks can cause the balance of trade approach to give negative values. l. Data for Ethiopia before 1993 include Eritrea. m. Irrigated land refers to land in the state sector only.

Sources: Food and Agriculture Organization of the United Nations and World Bank

	Average Per Capita Cereal Production (metric tons per 1000 people)		Variation in Domestic Cereal Production (average % variation from mean)		Net Cereal Imports and Food Aid as a Percent of Total Cereal Consumption (a)		Food Aid as a Percent of Total Imports		Average Daily Per Capita Calorie Supply (kilocalories)		Average Daily Per Capita Calories from Animal Products (kilocalories)		Percent of Children Underweight 1990-97 (b)
	1986-88	1996-98	1979-88	1989-98	1985-87	1995-97	1985-87	1995-97	1987	1997	1987	1997	
WORLD	355	356	5	3	1	0	6	2	2,667	2,782	408	441	29
ASIA (EXCL. MIDDLE EAST)	257	283	X	5	6	7	X	2	X	X	X	X	X
Armenia	X	94	X	14 c	X	55	X	X	X	2,371	X	404	X
Azerbaijan	X	133	X	43 c	X	29	X	X	X	2,236	X	367	10
Bangladesh	235	244	5	3	13	8	45	27	2,062	2,086	60	69	56
Bhutan	85	58	10	4	12	32	14	7	X	X	X	X	38 d
Cambodia	276	334	21	17	4	3	24	47	1,868	2,048	133	163	52
China	321 e	361 e	9 e	5 e	2 e	3 e	3 e	1 e	2,608 e	2,897 e	255 e	510 e	16
Georgia	X	143	X	22 c	X	42	X	X	X	2,614	X	316	X
India	210	229	9	4	(0)	(1)	52	40	2,228	2,496	149	174	53
Indonesia	267	290	12	5	4	10	11	0	2,458	2,886	97	134	34
Japan	121	103	6	8	64	67	X	X	2,870	2,932	578	598	X
Kazakhstan	X	609	X	41 c	X	(52)	X	X	X	3,085	X	609	8
Korea, Dem People's Rep	388	136	8	38	2	35	0	42	2,509	1,837	252	150	X
Korea, Rep	210	169	6	6	47	62	0	0	3,110	3,155	328	502	X
Kyrgyzstan	X	348	X	16 c	X	9	X	X	X	2,447	X	543	X
Lao People's Dem Rep	333	332	12	8	1	3	41	44	2,102	2,108	107	136	40
Malaysia	107	96	7	4	54	66	0	0	2,616	2,977	449	570	19
Mongolia	390	86	32	43	(4)	28	0	10	2,034	1,917	841	845	10
Myanmar	367	408	6	10	(4)	(1)	0	11	2,697	2,862	119	119	43
Nepal	269	288	12	7	0	2	43	35	2,144	2,366	153	152	47
Pakistan	180	179	5	8	3	3	39	3	2,224	2,476	290	370	38
Philippines	231	204	8	5	11	16	22	1	2,244	2,366	243	364	28
Singapore	0	0	X	X	100	100	0	0	X	X	X	X	X
Sri Lanka	149	129	9	9	31	36	31	7	2,253	2,302	119	143	34
Tajikistan	X	86	X	35 c	X	50	X	X	X	2,001	X	143	X
Thailand	446	463	9	7	(45)	(19)	26	1	2,133	2,360	212	282	19
Turkmenistan	X	173	X	19	X	31	X	X	X	2,306	X	417	X
Uzbekistan	X	159	X	21	X	31	X	X	X	2,433	X	432	19
Viet Nam	267	384	11	13	2	(9)	11	9	2,193	2,484	173	226	41
EUROPE	394	556	X	12	(5)	(3)	X	0	3,383	3,208 f	1,058	906 f	X
Albania	329	189	5	20	6	32	0	9	2,556	2,961	410	682	X
Austria	677	586	7	7	(17)	(7)	X	X	3,419	3,536	1,243	1,256	X
Belarus	X	515	X	12 c	X	16	X	X	X	3,226	X	919	X
Belgium (g)	222	237	X	X	47	60	X	X	3,454	3,619	1,223	1,151	X
Bosnia and Herzegovina	X	137	X	40 c	X	30	X	X	X	2,266	X	228	X
Bulgaria	885	597	10	20	13	(1)	0	1	3,699	2,686	871	617	X
Croatia	X	680	X	8 c	X	(0)	X	X	X	2,445	X	459	1
Czech Rep	X	663	X	29 c	X	(5)	X	X	X	3,244	X	816	1
Denmark	1,512	1,779	7	8	(23)	(25)	X	X	3,211	3,407	1,191	1,259	X
Estonia	X	435	X	11 c	X	22	X	X	X	2,849	X	797	X
Finland	576	734	14	9	(16)	(10)	X	X	2,941	3,100	1,228	1,195	X
France	952	1,104	8	7	(98)	(86)	X	X	3,543	3,518	1,360	1,334	X
Germany	466	537	6	8	9	(16)	X	X	3,478	3,382	1,165	1,050	X
Greece	544	437	8	9	(4)	(12)	X	X	3,481	3,649	733	798	X
Hungary	1,380	1,213	6	17	(14)	(28)	0	0	3,768	3,313	1,419	1,046	2 d
Iceland	0	0	X	X	100	100	0	0	3,208	3,117	1,371	1,224	X
Ireland	579	543	5	7	7	10	X	X	3,623	3,565	1,293	1,126	X
Italy	319	357	3	5	20	20	X	X	3,512	3,507	906	902	X
Latvia	X	402	X	12 c	X	11	X	X	X	2,864	X	705	X
Lithuania	X	758	X	14 c	X	5	X	X	X	3,261	X	794	X
Macedonia, FYR	X	304	X	37 c	X	23	X	X	X	2,664	X	488	X
Moldova, Rep	X	607	X	22 c	X	(1)	X	X	X	2,567	X	388	X
Netherlands	82	95	5	6	76	76	X	X	3,076	3,284	1,009	1,135	X
Norway	276	306	8	9	27	31	X	X	3,304	3,357	1,220	1,124	X
Poland	670	670	11	8	8	8	0	0	3,441	3,366	1,115	884	X
Portugal	163	150	12	10	54	61	0	0	3,400	3,667	676	995	X
Romania	811	759	6	14	1	(6)	0	0	2,944	3,253	705	697	6
Russian Federation	X	454	X	21 c	X	4	X	X	X	2,904	X	726	3
Slovakia	X	654	X	29 c	X	(11)	X	X	X	2,984	X	786	X
Slovenia	X	272	X	11 c	X	48	X	X	X	3,101	X	841	X
Spain	524	537	21	15	8	24	X	X	3,150	3,310	780	860	X
Sweden	623	666	7	11	(28)	(17)	X	X	2,898	3,194	1,053	1,075	X
Switzerland	157	175	11	4	52	29	X	X	3,358	3,223	1,277	1,119	X
Ukraine	X	546	X	14 c	X	(4)	X	X	X	2,795	X	583	X
United Kingdom	394	403	8	5	(18)	(13)	X	X	3,215	3,276	1,128	1,024	X
Yugoslavia	X	837	X	12 c	X	(3)	X	X	X	3,031	X	1,041	2
MIDDLE EAST & N. AFRICA	249	241	9	7	37	35	7	1	X	X	X	X	X
Afghanistan	223	177	9	11	13	9	74	37	2,281	1,745	180	138	48
Algeria	80	100	26	45	64	68	0	0	2,757	2,853	315	265	13
Egypt	178	268	5	10	53	34	19	2	3,120	3,287	238	221	15
Iran, Islamic Rep	236	259	11	10	27	31	0	0	2,659	2,836	268	279	16
Iraq	134	118	19	16	61	37	1	6	3,418	2,619	264	95	23
Israel	57	25	29	27	89	94	0	0	3,075	3,278	652	589	X
Jordan	22	16	42	13	91	94	4	8	2,780	3,014	385	266	9 d
Kuwait	2	2	84	35	99	99	X	X	3,021	3,096	707	728	6
Lebanon	24	30	32	8	93	90	9	0	3,040	3,277	431	448	3
Libyan Arab Jamahiriya	69	35	14	20	83	91	0	0	3,308	3,289	464	341	5
Morocco	297	259	27	41	30	43	16	0	3,047	3,078	190	210	9
Oman	3	2	36	5	99	99	X	X	X	X	X	X	23
Saudi Arabia	214	116	70	29	74	72	X	X	2,488	2,783	446	415	X
Syrian Arab Rep	310	347	29	26	29	(9)	4	2	3,166	3,352	395	399	13
Tunisia	124	203	33	42	49	58	21	1	3,067	3,283	275	279	9
Turkey	566	485	7	6	2	5	0	0	3,496	3,525	419	397	10
United Arab Emirates	1	0	29	57	100	100	X	X	3,038	3,390	793	827	14
Yemen	73	44	22	13	64	73	11	2	2,126	2,051	166	144	39

Data Table AF.3 continued

	Average Per Capita Cereal Production (metric tons per 1000 people)		Variation in Domestic Cereal Production (average % variation from mean)		Net Cereal Imports and Food Aid as a Percent of Total Cereal Consumption (a)		Food Aid as a Percent of Total Imports		Average Daily Per Capita Calorie Supply (kilocalories)		Average Daily Per Capita Calories from Animal Products (kilocalories)		Percent of Children Underweight 1990-97 (b)
	1986-88	1996-98	1979-88	1989-98	1985-87	1995-97	1985-87	1995-97	1987	1997	1987	1997	
SUB-SAHARAN AFRICA	152	146	12	8	16	13	29	14	2,063	f 2,183	f 149	f 143	f 31
Angola	41	46	8	26	49	59	31	29	1,864	1,903	251	138	42
Benin	113	145	17	15	16	14	11	13	1,961	2,487	105	104	29
Botswana	43	27	68	36	92	77	25	0	2,337	2,183	339	396	17
Burkina Faso	225	197	22	13	13	6	26	18	2,181	2,121	106	109	30
Burundi	56	44	10	7	10	9	14	6	2,023	1,685	56	44	37
Cameroon	86	88	10	15	24	15	4	1	2,178	2,111	146	125	14
Central African Rep	55	42	15	18	23	15	27	3	1,914	2,016	171	190	27
Chad	124	161	21	20	15	6	45	31	1,596	2,032	116	113	39
Congo	10	1	24	53	82	96	2	8	2,326	2,144	162	144	17 d
Congo, Dem Rep	37	31	12	7	31	17	20	6	2,132	1,755	64	47	34
Côte d'Ivoire	103	126	11	14	36	29	0	5	2,677	2,610	160	97	24
Equatorial Guinea	X	0	X	X	100	100	28	8	X	X	X	X	X
Eritrea	X	38	X	26	X	58	X	X	X	1,622	X	92	44
Ethiopia	127 h	150	10 h	20	25 h	11	57 h	50	1,677 h	1,858	107 h	101	48
Gabon	27	28	31	11	79	79	0	0	2,460	2,556	383	327	X
Gambia	122	88	17	5	44	51	23	4	2,498	2,350	121	126	26
Ghana	74	94	22	17	22	18	35	15	1,979	2,611	107	84	27
Guinea	115	127	8	15	23	27	29	2	2,060	2,232	63	62	X
Guinea-Bissau	170	158	16	6	24	28	33	5	2,378	2,430	172	165	23 d
Kenya	149	100	16	9	6	17	36	10	2,025	1,977	272	241	23
Lesotho	106	98	20	36	55	67	24	6	2,216	2,244	158	136	16
Liberia	123	64	6	46	35	73	26	28	2,344	2,044	98	65	X
Madagascar	220	183	3	3	12	5	39	19	2,292	2,022	239	194	40
Malawi	169	170	6	22	3	12	45	26	2,027	2,043	73	56	30
Mali	192	211	15	8	16	4	25	21	1,967	2,030	192	214	40
Mauritania	81	69	49	27	69	59	29	10	2,509	2,622	540	443	23
Mozambique	48	83	8	42	55	30	53	30	1,785	1,832	68	44	27
Namibia	63	65	8	32	56	56	0	4	2,199	2,183	273	272	26
Niger	268	232	12	9	12	4	24	36	2,033	2,097	118	113	43
Nigeria	196	213	28	7	10	6	0	0	2,103	2,735	84	103	36
Rwanda	45	35	5	22	13	71	33	56	2,042	2,057	57	60	27
Senegal	139	97	22	9	37	43	18	1	2,104	2,418	207	193	22
Sierra Leone	146	104	4	10	26	43	31	14	2,126	2,035	73	66	29
Somalia	82	31	24	38	43	28	43	11	1,995	1,566	635	737	X
South Africa	374	313	16	22	(8)	1	0	0	2,976	2,990	458	409	9
Sudan	157	197	35	32	32	7	51	16	2,208	2,395	373	473	34
Tanzania, United Rep	166	128	11	10	7	6	23	18	2,288	1,995	143	129	27
Togo	128	159	15	12	18	12	12	5	1,946	2,469	92	102	19
Uganda	80	83	10	8	3	2	46	51	2,113	2,085	128	138	26
Zambia	224	137	20	26	19	13	43	15	2,017	1,970	107	113	24
Zimbabwe	285	227	34	30	(17)	(19)	23	1	2,112	2,145	205	180	16
NORTH AMERICA	1,156	1,305	12	9	(38)	(43)	X	X	3,398	f 3,641	f 1,921	f 1,837	X
Canada	1,807	1,753	13	6	(86)	(72)	X	X	3,105	3,119	942	843	X
United States	1,086	1,255	14	10	(32)	(40)	X	X	3,430	3,699	979	995	1
C. AMERICA & CARIBBEAN	205	208	9	6	24	30	9	1	2,798	f 2,794	f 436	f 428	X
Belize	152	235	11	24	32	28	3	0	2,565	2,907	720	648	6
Costa Rica	114	58	8	11	44	75	42	0	2,717	2,649	425	469	2
Cuba	59	45	6	23	78	77	X	X	3,125	2,480	671	301	9
Dominican Rep	83	67	12	8	47	66	X	X	2,330	2,288	271	339	6
El Salvador	142	139	8	8	41	35	51	2	2,312	2,562	259	297	11
Guatemala	171	110	8	10	22	31	44	5	2,384	2,339	164	205	27
Haiti	73	56	5	8	31	47	X	X	1,848	1,869	123	99	28
Honduras	127	129	10	7	32	30	52	10	2,206	2,403	255	332	18
Jamaica	2	1	17	12	98	99	X	X	2,630	2,553	438	455	10
Mexico	290	306	11	7	14	22	0	0	3,022	3,097	493	520	14 d
Nicaragua	134	136	8	13	34	26	44	15	2,330	2,186	268	165	12
Panama	132	90	8	14	30	51	0	0	2,302	2,430	483	537	7
Trinidad and Tobago	8	11	34	19	97	95	X	X	2,975	2,661	544	382	7 d
SOUTH AMERICA	288	293	7	9	(5)	1	6	1	2,654	f 2,800	f 487	f 561	X
Argentina	764	943	15	17	(148)	(117)	X	X	3,096	3,093	1,004	886	X
Bolivia	138	152	16	12	41	24	42	33	2,153	2,174	356	406	16
Brazil	295	273	12	9	12	15	0	0	2,745	2,974	443	585	6
Chile	222	193	22	5	11	29	4	0	2,518	2,796	409	612	1
Colombia	103	84	5	7	22	47	3	0	2,341	2,597	342	428	8
Ecuador	135	156	27	12	24	15	8	2	2,430	2,679	349	471	17 d
Guyana	316	654	8	33	5	(42)	42	40	2,469	2,530	200	343	12
Paraguay	164	289	13	21	2	(18)	8	0	2,564	2,566	455	594	4
Peru	108	106	16	15	47	51	15	3	2,276	2,302	377	339	8
Suriname	711	536	7	7	(31)	(21)	0	26	2,435	2,665	313	332	X
Uruguay	352	640	9	20	(34)	(75)	0	0	2,613	2,816	962	944	5
Venezuela	132	97	21	8	51	48	X	X	2,602	2,321	433	361	5
OCEANIA	910	1,144	16	18	(857)	(150)	0	0	2,980	f 3,054	f 960	f 902	X
Australia	1,360	1,775	17	18	(1,735)	(194)	X	X	3,159	3,224	1,093	1,021	X
Fiji	39	24	18	17	77	87	0	0	2,626	2,865	496	589	8
New Zealand	301	247	16	9	(36)	24	X	X	3,201	3,395	1,291	1,303	X
Papua New Guinea	1	2	20	28	99	98	0	0	2,137	2,224	268	247	30 d
Solomon Islands	3	0	58	X	86	100	3	0	2,195	2,122	239	197	21 d
DEVELOPED	675	677	6	4	(9)	(15)	0	0	3,324	f 3,240	f 940	f 854	X
DEVELOPING	252	265	8	5	8	9	11	3	2,453	f 2,650	f 234	f 322	f 31

Notes: Zero is either 0 or less than one-half the unit of measure. (0) indicates a value less than 0 and greater than negative one-half. a. Negative values indicate net exports of grain. b. Data are for the most recent year within the time range given. c. Data are for the years 1992-98. d. Data refer to years or periods other than those specified in the column heading, differ from the standard definition, or refer to only part of that country. e. Data for China include Taiwan. f. Regional totals calculated by the data source. g. Data for Belgium include Luxembourg. h. Data for Ethiopia previous to 1993 include Eritrea.

Sources: Food and Agriculture Organization of the United Nations, United Nations Population Division, and United Nations Children's Fund

	Average Annual Internal Renewable Water Resources		Annual River Flows		Year of Data	Annual Withdrawals			Sectoral Withdrawals (percent)		
	Total (cubic km)	Per Capita (cubic meters) Year 2000	From Other Countries (cubic km)	To Other Countries (cubic km)		Total (cubic km)	Percentage of Water Resources	Per Capita (cubic meters)			
									Domestic	Industry	Agriculture
WORLD (a)	42,650.00	7,044	X	X	1990	3,414.00	8	648	9	20	71
ASIA (EXCL. MIDDLE EAST)	X	X	X	X	X	X	X	X	X	X	X
Armenia	9.07	2,577	1.5	3.2	1994	2.93	32	817	30	4	66
Azerbaijan	8.12	1,049	22.2	X	1995	16.53	204	2,186	5	25	70
Bangladesh	104.99	813	1,105.6	X	1990	14.64	14	134	12	2	86
Bhutan	95.00	44,728	X	X	1987	0.02	0	13	36	10	54
Cambodia	120.56	10,795	355.6	471.4	1987	0.52	0	66	5	1	94
China	2,812.40	2,201	17.2	719.0	1993	525.46	19	439	5	18	77
Georgia	58.13	11,702	5.2	14.4	1990	3.47	6	635	21	20	59
India	1,260.56	1,244	647.2	1,307.0	1990	500.00	40	588	5	3	92
Indonesia	2,838.00	13,380	X	X	1990	74.34	3	407	6	1	93
Japan	430.00	3,393	0.0	0.0	1992	91.40	21	735	19	17	64
Kazakhstan	75.42	4,649	34.2	51.7	1993	33.67	45	2,019	2	17	81
Korea, Dem People's Rep	67.00	2,787	10.1	4.9	1987	14.16	21	726	11	16	73
Korea, Rep	64.85	1,384	4.9	X	1994	23.67	36	531	26	11	63
Kyrgyzstan	46.45	9,884	X	25.9	1994	10.09	22	2,219	3	3	94
Lao People's Dem Rep	190.42	35,049	91.2	424.8	1987	0.99	1	260	8	10	82
Malaysia	580.00	26,074	X	X	1995	12.73	2	633	11	13	76
Mongolia	34.80	13,073	X	25.0	1993	0.43	1	182	20	27	53
Myanmar	880.59	19,306	128.2	X	1987	3.96	0	102	7	3	90
Nepal	198.20	8,282	12.0	133.2	1994	29.00	15	1,397	1	0	99
Pakistan	84.73	541	170.3	X	1991	155.60	184	1,269	2	2	97
Philippines	479.00	6,305	X	X	1995	55.42	12	811	8	4	88
Singapore	X	X	0.0	X	X	X	X	X	X	X	X
Sri Lanka	50.00	2,656	X	X	1990	9.77	20	573	2	2	96
Tajikistan	66.30	10,714	13.3	63.6	1994	11.87	18	2,095	4	4	92
Thailand	210.00	3,420	199.9	X	1990	33.13	16	596	5	4	91
Turkmenistan	1.36	305	44.1	26.4	1994	23.78	1,748	5,947	1	1	98
Uzbekistan	16.34	672	X	21.8	1994	58.05	355	2,626	4	2	94
Viet Nam	366.51	4,591	524.7	X	1990	54.33	15	815	4	10	86
EUROPE (a)	2,900.00	3,981	X	X	1990	476.10	16	660	14	45	41
Albania	26.92	8,646	15.7	X	1995	1.40	5	441	29	0	71
Austria	55.00	6,699	29.0	X	1995	2.23	4	278	31	60	9
Belarus	37.20	3,634	20.8	58.0	1990	2.73	7	266	22	43	35
Belgium	12.00	1,181	4.0	X	1980	9.03	75	917	X	X	X
Bosnia and Herzegovina	35.50	8,938	2.0	37.0	X	X	X	X	X	X	X
Bulgaria	18.00	2,188	X	X	X	X	X	X	X	X	X
Croatia	37.70	8,429	33.7	39.3	1996	0.76	2	170	50	50	X
Czech Rep	15.00	1,464	1.0	X	1995	2.52	17	244	39	57	1
Denmark	6.00	1,134	X	X	1995	0.89	15	170	53	9	16
Estonia	12.71	9,105	0.1	X	1995	0.16	1	106	56	39	5
Finland	107.00	20,673	3.0	X	1995	2.44	2	477	17	82	0
France	180.00	3,047	11.0	20.5	1995	40.64	23	700	15	73	12
Germany	107.00	1,301	71.0	X	1990	46.27	43	583	14	86	0
Greece	54.00	5,073	15.0	3.0	1990	7.03	13	688	16	3	81
Hungary	6.00	598	114.0	X	1995	6.26	104	612	14	70	5
Iceland	170.00	605,049	X	X	1995	0.16	0	611	50	6	0
Ireland	49.00	13,136	3.0	X	1995	1.18	2	326	40	21	15
Italy	160.68	2,804	6.8	0.0	1993	57.54	36	1,005	18	37	45
Latvia	16.74	7,104	18.7	0.7	1994	0.29	2	111	55	32	13
Lithuania	15.56	4,239	9.3	24.7	1995	0.25	2	68	81	16	3
Macedonia, FYR	6.00	2,965	1.0	7.0	X	X	X	X	X	X	X
Moldova, Rep	1.00	228	10.7	11.7	1992	2.96	296	677	9	65	26
Netherlands	11.00	697	80.0	X	1990	7.81	71	522	16	68	0
Norway	382.00	85,560	11.0	X	1985	2.03	1	488	27	68	3
Poland	55.00	1,419	8.0	X	1995	12.07	22	313	20	67	3
Portugal	37.00	3,747	35.0	0.0	1990	7.29	20	739	8	40	53
Romania	37.00	1,657	X	X	X	X	X	X	X	X	X
Russian Federation	4,313.70	29,358	184.5	X	1994	77.10	2	520	19	62	20
Slovakia	13.00	2,413	70.0	X	1995	1.41	11	263	39	50	8
Slovenia	18.50	9,317	0.0	17.3	1994	0.50	3	250	50	50	X
Spain	111.80	2,821	0.3	29.0	1997	35.52	32	897	13	18	68
Sweden	178.00	19,977	0.0	X	1995	2.73	2	310	35	30	4
Switzerland	40.00	5,416	13.0	X	1995	2.60	6	363	42	58	0
Ukraine	53.10	1,052	86.5	5.8	1992	25.99	49	501	18	52	30
United Kingdom	145.00	2,465	2.0	X	1995	9.34	6	160	65	8	2
Yugoslavia	44.00	4,135	144.0	182.0	X	X	X	X	X	X	X
MIDDLE EAST & N. AFRICA	X	X	X	X	X	X	X	X	X	X	X
Afghanistan	55.00	2,421	10.0	X	1987	26.11	47	1,846	1	0	99
Algeria	13.90	442	0.4	0.4	1990	4.50	32	180	25	15	60
Egypt	2.30	34	56.0	0.0	1993	55.10	2,396	920	6	8	86
Iran, Islamic Rep	128.50	1,898	X	55.9	1993	70.03	55	1,165	6	2	92
Iraq	35.20	1,523	X	0.0	1990	42.80	122	2,368	3	5	92
Israel	0.75	121	0.3	0.0	1997	1.71	228	292	29	7	64
Jordan	0.68	102	X	X	1993	0.98	145	187	22	3	75
Kuwait	0.02	10	0.0	0.0	1994	0.54	2,690	307	37	2	60
Lebanon	4.80	1,463	0.0	0.7	1994	1.29	27	444	28	4	68
Libyan Arab Jamahiriya	0.80	143	0.0	0.0	1995	3.89	486	783	9	4	87
Morocco	30.00	1,058	0.0	0.2	1991	11.05	37	454	5	3	92
Oman	0.99	388	X	X	1991	1.20	122	646	5	2	94
Saudi Arabia	2.40	111	0.0	X	1992	17.00	708	1,002	9	1	90
Syrian Arab Rep	7.00	434	37.7	32.0	1993	14.41	206	1,069	4	2	94
Tunisia	3.52	367	0.6	0.0	1996	2.83	80	312	13	2	86
Turkey	196.00	2,943	7.6	60.4	1997	35.50	18	560	16	11	73
United Arab Emirates	0.15	61	0.0	X	1995	2.11	1,405	954	24	9	67
Yemen	4.10	226	X	X	1990	2.93	72	253	7	1	92

	Average Annual Internal Renewable		Annual River Flows		Year of Data	Annual Withdrawals			Sectoral Withdrawals (percent)			
	Water Resources		From Other Countries (cubic km)	To Other Countries (cubic km)		Total (cubic km)	Percentage of Water Resources	Per Capita (cubic meters)	Domestic	Industry	Agriculture	
	Total (cubic km)	Per Capita (cubic meters) Year 2000										
SUB-SAHARAN AFRICA	X	X	X	X	X	X	X	X	X	X	X	X
Angola	184.00	14,288	X	X	1987	0.48	0	57	14	10	76	
Benin	10.30	1,689	15.5	X	1994	0.15	1	28	23	10	67	
Botswana	2.90	1,788	11.8	X	1992	0.11	4	81	32	20	48	
Burkina Faso	17.50	1,466	X	X	1992	0.38	2	39	19	0	81	
Burundi	3.60	538	X	X	1987	0.10	3	20	36	0	64	
Cameroon	268.00	17,766	0.0	0.0	1987	0.40	0	38	46	19	35	
Central African Rep	141.00	39,001	X	X	1987	0.07	0	26	21	6	73	
Chad	15.00	1,961	28.0	X	1990	0.19	1	33	16	2	82 b	
Congo	221.90	75,387	610.0	X	1987	0.04	0	20	62	27	11	
Congo, Dem Rep	935.00	18,101	84.0	X	1994	0.36	0	8	61	16	23	
Côte d'Ivoire	76.70	5,187	1.0	X	1987	0.70	1	66	22	11	67	
Equatorial Guinea	30.00	66,275	0.0	X	1987	0.01	0	30	81	13	6	
Eritrea	2.80	727	6.0	X	X	X	X	X	X	X	X	
Ethiopia	110.00	1,758	0.0	X	1987	2.20	2	50	11	3	86	
Gabon	164.00	133,754	0.0	X	1987	0.06	0	70	72	22	6	
Gambia	3.00	2,298	5.0	X	1990	0.03	1	33	7	2	91 c	
Ghana	30.30	1,499	22.9	X	1970	0.30	1	35	35	13	52	
Guinea	226.00	30,416	0.0	X	1987	0.74	0	141	10	3	87	
Guinea-Bissau	16.00	13,189	11.0	X	1991	0.02	0	17	60	4	36	
Kenya	20.20	672	10.0	X	1990	2.05	10	87	20	4	76	
Lesotho	5.23	2,430	0.0	X	1987	0.05	1	31	22	22	56	
Liberia	200.00	63,412	32.0	X	1987	0.13	0	54	27	13	60	
Madagascar	337.00	21,139	0.0	X	1990	19.70	6	1,694	1	0	99 d	
Malawi	17.54	1,605	1.1	X	1994	0.94	5	98	10	3	86	
Mali	60.00	5,341	40.0	X	1987	1.36	2	164	2	1	97	
Mauritania	0.40	150	11.0	X	1990	16.30	4,075	8,046	6	2	92 e	
Mozambique	100.00	5,081	116.0	X	1992	0.61	1	40	9	2	89	
Namibia	6.20	3,592	39.3	X	1990	0.25	4	185	29	3	68	
Niger	3.50	326	29.0	X	1990	0.50	14	65	16	2	82 f	
Nigeria	221.00	1,982	59.0	X	1990	4.00	2	46	31	15	54 b	
Rwanda	6.30	815	X	X	1993	0.77	12	134	5	1	94	
Senegal	26.40	2,784	13.0	X	1990	1.50	6	205	5	3	92 b	
Sierra Leone	160.00	32,960	0.0	X	1987	0.37	0	98	7	4	89	
Somalia	6.00	594	9.7	X	1987	0.81	14	115	3	0	97	
South Africa	44.80	1,110	5.2	X	1990	13.30	30	391	17	11	72	
Sudan	35.00	1,187	119.0	X	1995	17.80	51	669	5	1	94	
Tanzania, United Rep	80.00	2,387	9.0	X	1994	1.17	1	40	9	2	89	
Togo	11.50	2,484	0.5	X	1987	0.09	1	28	62	13	25	
Uganda	39.00	1,791	27.0	X	1970	0.20	1	20	32	8	60	
Zambia	80.20	8,747	35.8	X	1994	1.71	2	214	16	7	77	
Zimbabwe	14.10	1,208	5.9	X	1987	1.22	9	136	14	7	79	
NORTH AMERICA {a} {g}	7,770.00	25,105	X	X	1990	617.10	8	2,189	11	42	47	
Canada	2,740.00	87,971	52.0	X	1990	45.10	2	1,623	11	80	9	
United States	2,460.00	8,838	18.0	0.0	1995	447.71	18	1,677	8	65	27	
C. AMERICA & CARIBBEAN	X	X	X	X	X	X	X	X	X	X	X	
Belize	16.00	66,470	X	X	1993	0.10	1	469	12	88	0	
Costa Rica	112.40	27,936	X	X	1997	5.77	5	1,540	13	7	80	
Cuba	38.00	3,393	X	X	1995	5.21	14	475	49	0	51	
Dominican Rep	21.00	2,472	X	X	1994	8.34	40	1,085	11	0	89	
El Salvador	17.70	2,820	X	X	1992	0.73	4	137	34	20	46	
Guatemala	134.40	11,805	X	X	1992	1.16	1	126	9	17	74	
Haiti	12.11	1,473	X	X	1991	0.98	8	139	5	1	94	
Honduras	96.10	14,818	X	X	1992	1.52	2	293	4	5	91	
Jamaica	9.40	3,640	X	X	1993	0.90	10	371	15	7	77	
Mexico	409.00	4,136	49.0	X	1998	77.81	19	812	17	5	78	
Nicaragua	190.20	37,484	X	X	1998	1.29	1	267	14	2	84	
Panama	147.40	51,616	X	X	1990	1.64	1	685	28	2	70	
Trinidad and Tobago	X	X	X	X	X	X	X	X	X	X	X	
SOUTH AMERICA {a}	12,030.00	34,791	X	X	1990	140.70	1	477	20	11	69	
Argentina	360.00	9,721	X	X	1995	28.58	8	822	16	9	75	
Bolivia	316.00	37,941	X	X	1990	1.38	0	210	32	20	48 b	
Brazil	5,418.00	31,849	X	X	1992	54.87	1	359	21	18	61	
Chile	928.00	61,007	X	X	1990	21.40	2	1,634	5	11	84 b	
Colombia	2,133.00	50,400	X	X	1996	8.94	0	228	59	4	37	
Ecuador	442.00	34,952	X	X	1997	16.99	4	1,423	12	6	82	
Guyana	241.00	279,799	X	X	1992	1.46	1	1,811	1	0	98	
Paraguay	94.00	17,102	X	X	1987	0.43	0	112	15	7	78	
Peru	1,746.00	68,039	X	X	1992	18.97	1	849	7	7	86	
Suriname	200.00	479,467	X	X	1990	0.49	0	1,220	6	5	89 b	
Uruguay	59.00	17,680	X	X	1990	4.20	7	1,352	6	3	91 h	
Venezuela	846.00	35,002	X	X	1970	4.10	0	382	44	10	46	
OCEANIA {a}	2,400.00	78,886	X	X	1990	24.30	1	919	57	14	30	
Australia	352.00	18,638	0.0	X	1995	15.06	4	839	12	6	70	
Fiji	X	X	X	X	X	X	X	X	0	0	0	
New Zealand	327.00	84,673	X	X	1995	2.00	1	545	9	13	55	
Papua New Guinea	801.00	166,644	X	X	1987	0.10	0	28	29	22	49	
Solomon Islands	X	X	X	X	X	X	X	X	X	X	X	
AFRICA {a}	4,040.00	5,152	X	X	1990	148.80	4	242	9	6	85	
ASIA {a}	13,508.00	3,949	X	X	1990	2,007.00	15	675	7	9	84	

Notes: Zero is either 0 or less than one-half the unit of measure. Total withdrawals may exceed 100 percent due to groundwater drawdowns, withdrawals from river inflows, and the operation of desalinization plants. a. World and regional totals are reported by I.A. Shiklomanov. b. Sectoral withdrawal estimates are for 1987. c. Sectoral withdrawal estimates are for 1982. d. Sectoral withdrawal estimates are for 1984. e. Sectoral withdrawal estimates are for 1985. f. Sectoral withdrawal estimates are for 1988. g. Data include Central America and the Caribbean. h. Sectoral withdrawal estimates are for 1965.

Sources: Various

	Average Annual Groundwater Recharge					Annual Groundwater Withdrawals					Desalinated Water Production (million cubic meters)	
	Total (cubic km)	Per Capita (cubic meters)	Year	Total (cubic km)	Percentage of Annual Recharge	Per Capita (cubic meters)	Sectoral Share (percentage)			1990		
							Domestic	Industry	Agriculture			
											Years Vary	Year 2000
WORLD (a)	X	X	1990	760.0	X	125.5	24	72	5	X		
ASIA (EXCL. MIDDLE EAST)	X	X	X	X	X	X	X	X	X	X		
Armenia	4.2	1,193	X	X	X	X	X	X	X	X		
Azerbaijan	6.5	842	X	X	X	X	X	X	X	X		
Bangladesh	21.0	163	1990	10.7	50.9	82.7	13	1	86 b	X		
Bhutan	X	X	X	X	X	X	X	X	X	X		
Cambodia	17.6 c	1,576	X	X	X	X	X	X	X	X		
China	828.8 c	649	1988	52.9	6.4	41.4	X	46 d	54 b	X		
Georgia	17.2	3,469	X	X	X	X	X	X	X	X		
India	418.5 c	413	1990	190.0	45.4	187.4	9	2	89	X		
Indonesia	455.0 c	2,145	X	X	X	X	X	X	X	X		
Japan	185.0 c	1,460	1995	13.6	7.3	107.1	29	41	30 b	40.0		
Kazakhstan	35.9	2,211	1993	2.4	6.7	147.9	21	71	8 e	1,328.0 f		
Korea, Dem People's Rep	21.0 c	874	X	X	X	X	X	X	X	X		
Korea, Rep	13.3 c	284	1995	2.5	18.6	52.9	X	83 d	17 b	X		
Kyrgyzstan	13.6	2,894	1994	0.6	4.4	127.7	X	X	X	X		
Lao People's Dem Rep	38.0	6,994	X	X	X	X	X	X	X	X		
Malaysia	64.0 c	2,877	1995	0.4	0.6	17.2	62	33	5	X		
Mongolia	6.1	2,291	1993	0.4	5.8	132.5	X	X	X	X		
Myanmar	156.0 c	3,420	X	X	X	X	X	X	X	X		
Nepal	X	X	X	X	X	X	X	X	X	X		
Pakistan	55.0	351	1991	55.0	100.0	351.5	X	11 d	89 b	X		
Philippines	180.0 c	2,369	1980	4.0	2.2	52.7	50	50	0	X		
Singapore	X	X	X	X	X	X	X	X	X	X		
Sri Lanka	7.8	414	X	X	X	X	X	X	X	X		
Tajikistan	6.0	970	1994	2.3	37.7	365.2	X	X	X	X		
Thailand	41.9 c	682	1980	0.7	1.7	11.4	60	26	14	X		
Turkmenistan	3.4	753	1994	0.4	11.9	89.9	53	9	38	X		
Uzbekistan	19.7	809	1994	7.4	37.6	303.9	33	11	57	X		
Viet Nam	48.0 c	601	1990	0.8	1.7	9.9	X	X	X	X		
EUROPE	X	X	X	X	X	X	X	X	X	X		
Albania	7.0 c	2,248	1989	0.6	9.0	202.3	48	0	52	X		
Austria	22.3 c	2,716	1995	1.4	6.2	168.1	52	43	5 b	X		
Belarus	18.0	1,758	1989	1.2	6.6	115.5	56	14	30 b	X		
Belgium	0.9 g	89	1980	0.8	86.4	76.6	68	27	5	X		
Bosnia and Herzegovina	X	X	X	X	X	X	X	X	X	X		
Bulgaria	3.1 g	377	1988	5.0	161.3	607.9	X	X	X	X		
Croatia	11.0	2,459	X	X	X	X	X	X	X	X		
Czech Rep	X	X	1995	0.5	X	48.4	X	X	X	X		
Denmark	4.3 h	812	1995	0.9	20.6	167.6	40	22	38 b	X		
Estonia	4.0	2,865	X	X	X	X	X	X	X	X		
Finland	2.2 g	425	1995	0.2	11.1	47.1	65	11	24 b	X		
France	100.0 c	1,693	1994	6.0	6.0	101.5	56	27	17	X		
Germany	45.7 c	556	1990	7.1	15.5	86.3	49	48	4 b	X		
Greece	10.8	235	1990	2.0	80.0	187.9	37	5	58	X		
Hungary	6.8 c	678	1995	1.0	14.5	98.4	35	48	18 b	X		
Iceland	24.0 c	85,419	1995	0.2	0.6	533.9	X	X	X	X		
Ireland	3.5 g	928	1995	0.2	6.5	60.3	35	37	29 b	X		
Italy	43.0	750	1992	13.9	46.3	242.6	39	4	58	X		
Latvia	2.2	934	X	X	X	X	X	X	X	X		
Lithuania	1.2	327	1995	0.2	17.1	55.9	X	X	X	X		
Macedonia, FYR	X	X	X	X	X	X	X	X	X	X		
Moldova, Rep	0.4	91	X	X	X	X	X	X	X	X		
Netherlands	4.5 h	285	1990	1.0	23.3	66.5	32	45	23 b	X		
Norway	96.0 c	21,502	1985	0.4	0.4	90.7	27	73	0	X		
Poland	36.0	929	1995	2.0	5.5	51.3	70	30	0 b	X		
Portugal	5.1 g	516	1995	3.5	68.6	354.4	39	23	39 b	X		
Romania	8.3 h	372	1993	3.6	43.7	162.6	61	38	1 b	X		
Russian Federation	788.0	5,363	1988	12.6	1.6	85.4	X	X	X	X		
Slovakia	X	X	1995	0.6	X	112.3	X	X	X	X		
Slovenia	X	X	1994	0.2	X	88.6	X	X	X	X		
Spain	28.9	522	1995	5.4	26.1	136.5	18	2 j	80 j	X		
Sweden	20.0 g	2,245	1995	0.6	3.2	71.9	92	8	0 b	X		
Switzerland	2.7	366	1995	0.9	33.4	122.1	64	36	0 b	X		
Ukraine	20.0	396	1989	4.0	20.1	79.6	30	18	52 b	X		
United Kingdom	9.8	167	1995	2.5	25.2	42.0	51	47	2 b	X		
Yugoslavia	3.0	282	X	X	X	X	X	X	X	X		
MIDDLE EAST & N. AFRICA	X	X	X	X	X	X	X	X	X	X		
Afghanistan	29.0 c	1,276	X	X	X	X	X	X	X	X		
Algeria	1.7 g	54	1989	2.9	167.6	90.6	46	5	49	64.0		
Egypt	1.3 g	19	1992	2.7	407.7	77.4	58	0	42	25.0		
Iran, Islamic Rep	42.0	620	1980	29.0	69.0	428.3	X	X	X	2.9 k		
Iraq	13.0	562	1985	0.2	1.5	8.7	56	44	0	X		
Israel	0.5	80	1996	1.2	234.0	188.2	18	2	80	20.0		
Jordan	0.6 g	87	1993	0.5	91.4	79.5	30	4	66 l	2.0 f		
Kuwait	X	X	1994	0.3	X	126.8	0	0	100 l	231.0 f		
Lebanon	4.8	1,463	1991	0.4	12.5	121.9	13	9	8	X		
Libyan Arab Jamahiriya	0.7	116	1995	3.7	561.5	651.2	9	4	87	70.0 o		
Morocco	9.0	317	1998	2.7	29.8	94.5	16	0 k	84 k	3.4 j		
Oman	1.0	376	1985	0.4	41.9	157.4	X	X	X	34.0 m		
Saudi Arabia	2.2 c	102	1990	14.5	660.2	672.2	10	0	90	714.0 m		
Syrian Arab Rep	6.6	409	1993	1.8	27.3	111.6	13	4	83	X		
Tunisia	4.2	433	1995	1.6	134.4	169.6	10	4	86	8.3		
Turkey	20.0 h	300	1995	7.6	38.0	114.1	31	9	60 b	0.5		
United Arab Emirates	0.1	49	1995	1.6	1345.8	661.5	X	20 d	80	385.0 m		
Yemen	1.5	84	1985	1.4	88.5	74.5	X	X	X	10.0 n		

	Average Annual Groundwater Recharge		Annual Groundwater Withdrawals							Desalinated Water Production (million cubic meters) 1990
	Total (cubic km) Years Vary	Per Capita (cubic meters)	Year	Total (cubic km)	Percentage of Annual Recharge	Per Capita (cubic meters)	Sectoral Share (percentage)			
		Year					Domestic	Industry	Agriculture	
		2000								
SUB-SAHARAN AFRICA	X	X	X	X	X	X	X	X	X	X
Angola	72.0 c	5,591	X	X	X	X	X	X	X	0.1
Benin	1.8 g	295	X	X	X	X	X	X	X	X
Botswana	1.7 g	1,048	X	X	X	X	X	X	X	X
Burkina Faso	9.5 g	796	X	X	X	X	X	X	X	X
Burundi	2.1 c	314	X	X	X	X	X	X	X	X
Cameroon	100.0 c	6,629	X	X	X	X	X	X	X	X
Central African Rep	56.0 c	15,490	X	X	X	X	X	X	X	X
Chad	11.5 c	1,503	1990	0.1	0.8	11.8	29	0	71	X
Congo	198.0 c	67,268	X	X	X	X	X	X	X	0.2
Congo, Dem Rep	421.0 c	8,150	X	X	X	X	X	X	X	X
Côte d'Ivoire	37.7 g	2,550	X	X	X	X	X	X	X	X
Equatorial Guinea	10.0 c	22,092	X	X	X	X	X	X	X	X
Eritrea	X	X	X	X	X	X	X	X	X	X
Ethiopia	44.0 c	703	X	X	X	X	X	X	X	X
Gabon	62.0 c	50,566	1989	0.0	0.0	0.4	100	0	0	X
Gambia	0.5 c	383	X	X	X	X	X	X	X	X
Ghana	26.3 g	1,301	X	X	X	X	X	X	X	X
Guinea	38.0 c	5,114	X	X	X	X	X	X	X	X
Guinea-Bissau	14.0 c	11,541	X	X	X	X	X	X	X	X
Kenya	3.0 g	100	X	X	X	X	X	X	X	X
Lesotho	0.5 c	232	X	X	X	X	X	X	X	X
Liberia	60.0 c	19,023	X	X	X	X	X	X	X	X
Madagascar	55.0 c	3,450	1984	4.8	8.7	298.6	100	0	0	X
Malawi	1.4 c	128	X	X	X	X	X	X	X	X
Mali	20.0 g	1,780	1989	0.1	0.5	8.9	7	0	93	X
Mauritania	0.3 g	112	1985	0.9	293.3	329.6	X	X	X	1.7
Mozambique	17.0 c	864	X	X	X	X	X	X	X	0.1
Namibia	2.1 c	1,217	X	X	X	X	X	X	X	3.0
Niger	2.5 g	233	1988	0.1	5.2	12.1	58	4	39	X
Nigeria	87.0 c	780	X	X	X	X	X	X	X	3.0
Rwanda	3.6 c	466	X	X	X	X	X	X	X	X
Senegal	7.6 c	802	1985	0.3	3.3	26.4	25	0	75	0.1
Sierra Leone	50.0 c	10,300	X	X	X	X	X	X	X	X
Somalia	3.3 c	327	1985	0.3	9.1	29.7	X	X	X	0.1
South Africa	4.8	119	1980	1.8	37.3	44.3	11	6	84	17.5
Sudan	7.0	237	1985	0.3	4.0	9.5	X	X	X	0.4
Tanzania, United Rep	30.0 c	895	X	X	X	X	X	X	X	X
Togo	5.7 g	1,231	X	X	X	X	X	X	X	X
Uganda	29.0 c	1,332	X	X	X	X	X	X	X	X
Zambia	47.1	5,137	X	X	X	X	X	X	X	X
Zimbabwe	5.0 c	428	X	X	X	X	X	X	X	X
NORTH AMERICA	X	X	X	X	X	X	X	X	X	X
Canada	370.0	11,879	1990	1.0	0.3	33.3	43	14	43	b
United States	660.0	2,371	1995	109.8	16.2	384.5	24	10	66	X
C. AMERICA & CARIBBEAN	X	X	X	X	X	X	X	X	X	X
Belize	X	X	X	X	X	X	X	X	X	X
Costa Rica	21.0 c	5,219	X	X	X	X	X	X	X	X
Cuba	8.0 c	714	1975	3.8	47.5	339.3	X	X	X	X
Dominican Rep	3.0 c	353	X	X	X	X	X	X	X	X
El Salvador	X	X	X	X	X	X	X	X	X	X
Guatemala	31.0 c	2,723	X	X	X	X	X	X	X	X
Haiti	2.5 h	304	X	X	X	X	X	X	X	X
Honduras	39.0 c	6,013	X	X	X	X	X	X	X	X
Jamaica	X	X	X	X	X	X	X	X	X	X
Mexico	139.0 c	1,406	1995	25.1	18.1	253.8	13	23	64	b
Nicaragua	59.0 c	11,627	X	X	X	X	X	X	X	X
Panama	42.0 c	14,708	X	X	X	X	X	X	X	X
Trinidad and Tobago	X	X	X	X	X	X	X	X	X	X
SOUTH AMERICA	X	X	X	X	X	X	X	X	X	X
Argentina	128.0 c	3,456	1975	4.7	3.7	126.9	11	19	70	X
Bolivia	130.0 c	15,609	X	X	X	X	X	X	X	X
Brazil	1,874.0 c	11,016	1987	8.0	-0.4	47.0	38	25	38	X
Chile	140.0 c	9,204	X	X	X	X	X	X	X	X
Colombia	510.0 c	12,051	X	X	X	X	X	X	X	X
Ecuador	134.0 c	10,596	X	X	X	X	X	X	X	X
Guyana	103.0 c	119,582	X	X	X	X	X	X	X	X
Paraguay	41.0 c	7,459	X	X	X	X	X	X	X	X
Peru	303.0 c	11,807	1973	2.0	0.7	77.9	25	15	60	X
Suriname	80.0 c	191,787	X	X	X	X	X	X	X	X
Uruguay	23.0 c	6,892	X	X	X	X	X	X	X	X
Venezuela	227.0 c	9,392	X	X	X	X	X	X	X	X
OCEANIA	X	X	X	X	X	X	X	X	X	X
Australia	72.0 g	3,812	1985	2.2	3.1	118.6	X	23	77	b
Fiji	X	X	X	X	X	X	X	X	X	X
New Zealand	198.0 c	51,270	X	X	X	X	X	X	X	X
Papua New Guinea	X	X	X	X	X	X	X	X	X	X
Solomon Islands	X	X	X	X	X	X	X	X	X	X

Notes: Zero is either 0 or less than one-half the unit of measure. a. World totals reported by I.A. Shiklomanov. b. Sectoral data predate other withdrawal data. c. Sum of all groundwater flows (as a constituent of surface water flows). d. Domestic and industrial withdrawals combined. e. Both withdrawal and sectoral data estimated from a FAO bar graph (Food and Agriculture Organization of the United Nations [FAO] Water Report). f. Data are from 1993. g. Sum of all aquifer recharge flows. h. Sum of the total groundwater flow that is exploitable. i. Sum of groundwater flows collected by water courses and those that discharge directly to the sea. j. Data are from 1992. k. Data are from 1991. l. Sectoral data are estimated from a FAO bar graph (FAO Water Report). m. Data are from 1995. n. Data are from 1989. o. Data are from 1994.

Sources: Various

Major Watersheds	Modeled Watershed Area (a) (km ²)	Countries within the Watershed (number)	Average Population Density (per km ²)	Percent of Watershed that is:							Ramsar Sites (c) (number)	Water Available Per Person (m ³ / person/ year)	Large Dams in Progress (number)	Degree of River Fragmentation (d)
				Crop-land	Forest	Grass-land	Built-up Area (b)	Irrigated Area	Arid Area	Wetlands				
ASIA														
Amu Darya	534,739	5	39	22.4	0.1	57.3	3.7	7.5	72.0	0.0	0	3,211	2	High
Amur	1,929,955	3 e	34	18.4	53.8	8.8	2.6	0.8	15.1	4.4	7	4,917	4	Medium
Brahmaputra	651,335	4 e	178	29.4	18.5	44.7	2.4	3.7	0.0	20.7	1	X	3	X
Chao Phya	178,785	1	122	44.7	35.4	11.1	9.2	12.5	0.0	8.4	0	1,237	0	High
Ganges	1,016,124	4 e	398	72.4	4.2	13.4	6.3	22.7	26.0	17.7	4	X	5	X
Godavari	319,810	1	203	64.0	6.8	22.5	6.7	11.7	42.9	1.2	0	1,602	0	X
Hong	170,888	2	191	36.3	43.2	15.5	2.1	3.9	0.0	5.4	0	3,083	3	X
Huang He	944,970	1	157	29.5	1.5	60.0	5.9	7.2	37.5	1.1	0	361	7	High
Indigirka	274,818	1	<1	0.0	2.4	69.7	0.1	0.0	0.0	3.0	0	973,515	0	Low
Indus	1,081,718	4	163	30.0	0.4	46.4	4.6	24.1	62.6	4.2	10	830	3	X
Irrawaddy	413,710	3	78	30.5	56.2	9.7	1.9	3.4	0.0	6.3	0	18,614	0	X
Kizil	122,277	1	55	38.0	1.6	52.0	6.4	4.1	84.9	3.4	2	1,171	9	X
Kolyma	679,934	1	<1	0.0	0.7	45.3	0.3	0.0	0.0	1.0	0	722,456	1	Medium
Krishna	226,037	1	263	66.4	2.8	22.7	8.8	16.2	41.3	16.2	0	786	2	X
Kura-Araks	205,037	5	75	54.0	7.1	30.6	6.3	10.7	25.4	0.9	2	1,121	4	High
Lake Balkhash	512,015	2	11	23.2	4.0	61.1	1.5	1.9	91.6	4.7	0	439	0	X
Lena	2,306,743	1	1	1.7	64.7	11.4	0.4	0.0	0.7	0.6	0	161,359	0	Medium
Mahanadi	145,816	1	198	59.5	8.1	26.7	4.9	17.4	0.0	0.2	0	2,171	1	X
Mekong	805,604	6	71	37.8	41.5	17.2	2.1	2.9	0.0	8.7	0	8,934	3	Medium
Narmada	96,271	1	177	76.5	0.8	15.8	6.1	24.0	25.8	0.8	0	2,159	2	X
Ob	2,972,493	4	10	36.9	33.9	16.0	3.0	0.5	42.5	11.2	4	14,937	0	Medium
Salween	271,914	3	22	5.5	43.4	48.3	0.5	0.4	0.0	9.5	0	23,796	1	X
Syr Darya	782,617	4	28	22.2	2.4	67.4	3.2	5.4	88.5	2.0	1	1,171	4	High
Tapti	74,627	1	239	78.3	0.2	14.7	7.6	13.3	63.7	0.8	0	1,107	1	X
Tarim	1,152,448	2	7	2.3	0.0	35.3	0.3	0.6	61.4	16.3	0	754	0	High
Tigris & Euphrates	765,742	4	57	25.4	1.2	47.7	6.2	9.1	90.9	2.9	0	2,189	19	X
Xun Jiang	409,480	2	194	66.5	9.6	6.1	5.3	5.2	0.0	1.3	0	3,169	10	X
Yalu Jiang	48,331	2	102	41.6	51.2	2.2	2.9	4.4	0.0	1.0	0	3,628	0	High
Yangtze	1,722,193	1	212	47.6	6.3	28.2	3.0	7.1	0.0	3.0	2	2,265	38	Medium
Yenisey	2,554,388	2	3	12.8	39.7	32.4	1.3	0.0	10.9	2.7	1	79,083	1	High
EUROPE														
Dalälven	30,410	1	10	2.3	71.6	3.4	13.5	0.0	0.0	19.1	1	18,476	0	High
Danube	795,656	13 e	102	66.9	18.2	3.2	10.7	5.2	2.6	1.4	47	2,519	11	High
Dnieper	533,966	3	62	86.5	2.2	1.3	8.8	1.8	3.4	5.9	0	1,552	0	High
Dniester	68,627	3	106	82.8	5.2	1.9	9.3	3.8	5.8	1.1	0	1,621	0	X
Don	458,694	2	46	83.1	1.4	5.4	8.8	3.2	33.1	0.5	1	1,422	0	High
Duero	98,258	2	43	67.4	0.6	21.5	9.9	5.6	9.7	0.4	1	4,093	2	High
Ebro	82,587	1 e	34	58.2	5.1	22.1	13.7	10.0	39.8	0.9	4	8,235	5	High
Elbe	148,919	4	170	75.7	2.0	3.2	18.2	1.3	0.0	1.7	11	1,195	0	High
Garonne	53,540	3	61	75.9	6.4	2.1	15.4	4.0	0.0	0.1	0	5,504	0	High
Gläma	41,795	1	27	1.3	46.0	25.0	15.4	0.7	0.0	1.8	3	17,907	0	High
Guadalquivir	52,664	1	73	52.7	0.5	27.2	18.9	10.4	34.6	3.2	3	2,645	1	X
Kemijoki	52,456	3	3	0.3	77.8	11.6	6.2	0.0	0.0	2.9	1	132,939	0	High
Loire	115,282	1	65	83.7	1.6	0.1	14.3	0.7	0.0	0.9	3	3,386	0	Medium
North Dvina	357,075	1	6	11.7	83.4	0.4	3.0	0.0	0.0	1.5	0	48,450	0	Medium
Oder	124,164	3	121	82.3	0.7	2.7	13.3	0.4	0.0	0.3	4	1,271	0	Medium
Pechora	289,532	1	2	0.2	49.5	45.1	1.2	0.0	0.0	5.0	0	215,057	0	Low
Po	76,997	2	214	50.2	13.0	12.7	20.0	16.2	0.0	1.8	9	2,731	1	X
Rhine-Maas	198,735	8	310	64.7	6.8	1.4	25.7	3.3	0.0	1.0	20	1,396	0	Medium
Rhône	100,543	2	100	62.0	11.0	5.3	20.1	4.1	0.0	1.0	3	5,401	0	High
Seine	78,919	1 e	199	79.0	1.6	0.0	19.2	1.4	0.0	0.1	1	965	0	Medium
Tagus	78,467	2	118	46.8	0.1	34.8	16.6	5.2	31.4	1.6	2	2,248	0	High
Ural	244,334	2	14	59.3	2.3	33.4	4.2	0.9	99.6	0.2	0	2,003	0	X
Vistula	180,156	4 e	139	83.2	1.8	2.2	11.7	0.2	0.0	3.2	2	1,367	0	Medium
Volga	1,410,951	2 e	42	60.2	22.5	7.3	8.2	0.4	19.6	1.1	2	4,260	0	High
West Dvina	79,389	3	29	84.8	7.2	0.0	5.5	0.2	0.0	3.4	0	6,626	0	High
Weser	45,138	1	203	78.7	1.8	1.0	18.3	1.7	0.0	0.1	4	1,567	0	High

Major Watersheds	Modeled Watershed Area (a) (km ²)	Countries within the Watershed (number)	Average Population Density (per km ²)	Percent of Watershed that is:							Ramsar Sites (c) (number)	Water Available Per Person (m ³ / person/ year)	Large Dams in Progress (number)	Degree of River Fragmentation (d)
				Crop-land	Forest	Grass-land	Built-up Area (b)	Irrigated Area	Arid Area	Wetlands				
AFRICA														
Congo	3,730,881	9	15	7.2	44.0	45.4	0.2	0.0	0.0	9.0	3	22,752	0	Medium
Cuanza	149,688	1	24	2.8	16.2	79.6	0.3	0.0	5.8	2.1	0	17,126	0	Medium
Cunene	109,832	2	10	2.6	3.3	90.9	0.1	0.1	15.8	2.9	0	13,216	0	X
Jubba	497,626	3	12	6.6	2.7	87.9	0.2	0.1	71.5	3.5	2	1,076	0	X
Lake Chad (f)	2,497,738	8	12	3.1	0.2	45.2	0.2	0.0	82.8	8.2	1	7,922	0	Low
Lake Turkana	209,096	4	60	20.8	11.9	50.2	0.1	0.3	33.0	5.9	0	4,450	0	X
Limpopo	421,123	4	32	26.3	0.7	67.7	4.5	0.9	47.3	2.8	1	716	0	High
Mangoky	58,851	1	18	4.5	3.3	90.8	0.1	2.3	39.1	0.2	0	19,059	0	Low
Mania	56,118	1	25	2.5	5.7	89.8	0.2	2.6	0.1	0.9	0	25,913	0	Low
Niger	2,261,741	10	32	4.4	0.9	68.6	0.5	0.1	65.4	4.1	6	4,076	1	High
Nile	3,254,853	10	44	10.7	2.0	53.0	1.0	1.4	67.4	6.1	2	2,207	0	High
Ogooué	223,946	4	2	0.8	75.1	21.7	0.5	0.0	0.0	6.2	1	289,401	0	X
Okavango (g)	721,258	4	2	5.5	1.7	91.1	0.2	0.0	75.8	4.1	1	X	0	X
Orange	941,351	4	11	6.0	0.2	85.0	2.2	0.5	77.0	0.8	1	1,050	1	High
Oued Draa	114,544	3	10	0.3	0.2	12.0	0.5	3.2	95.3	0.2	0	2	1	X
Rufiji	204,780	1	21	19.7	2.1	77.4	0.2	0.1	0.0	7.8	0	6,466	0	Low
Senegal	419,575	4	10	4.8	0.1	68.2	0.1	0.0	82.0	3.6	4	5,775	0	High
Shabelle	336,604	2	30	7.1	1.2	87.9	0.1	0.5	80.5	1.8	0	X	0	X
Volta	407,093	6	42	10.4	0.7	85.6	0.5	0.1	59.9	4.6	3	2,054	0	High
Zambezi	1,332,412	8	18	19.9	4.0	72.0	0.7	0.1	8.8	7.6	1	X	0	High
NORTH & CENTRAL AMERICA														
Alabama-Tombigbee	138,139	1	31	9.1	73.0	0.2	17.4	0.0	0.0	4.0	0	15,832	0	High
Balsas	117,095	1	85	4.1	37.6	46.6	11.5	3.1	12.4	0.0	0	1,650	0	High
Brazos	137,098	1	18	25.0	1.9	58.8	13.8	5.6	80.2	14.8	0	1,288	0	X
Colorado	703,148	2	10	0.9	17.0	74.9	6.9	2.0	89.1	2.5	0	2,105	1	High
Columbia	657,501	2	9	6.4	50.0	35.5	7.3	3.6	48.7	6.3	1	39,474	0	High
Fraser	248,016	2	5	0.4	85.7	6.2	4.1	0.0	2.5	1.7	0	60,950	0	Medium
Hudson	41,906	1	133	0.3	76.3	0.0	22.8	0.0	0.0	15.0	0	3,335	0	Medium
Mackenzie	1,706,388	1	<1	2.6	66.0	14.7	1.9	0.0	0.0	48.9	3	408,243	0	Medium
Mississippi	3,202,185	2	22	35.8	22.2	28.5	12.6	3.1	35.5	20.0	6	8,973	0	High
Nelson-Saskatchewan	1,093,141	2	5	47.4	31.9	6.1	7.1	0.5	21.5	86.8	5	15,167	0	High
Rio Grande	607,965	2	18	5.2	7.5	80.9	6.0	2.6	96.0	2.1	1	621	0	X
Rio Grande de Santiago	136,694	1	111	4.2	36.3	45.0	13.9	9.0	24.9	0.0	0	655	0	High
San Pedro & Usumacinta	78,720	3	28	30.5	58.7	7.6	2.6	0.2	2.8	0.0	1	30,120	0	Medium
Sacramento	78,757	1	32	6.0	48.6	33.3	11.5	11.5	26.5	3.0	0	3,474	0	High
St. Lawrence (h)	1,049,636	2	43	16.4	43.5	0.1	14.5	0.2	0.0	47.2	7	9,095	0	High
Susquehanna	78,672	1	57	7.0	73.3	0.0	19.2	0.0	0.0	4.0	0	9,029	0	Medium
Thelon	239,245	1	<1	0.0	5.6	21.1	0.0	0.0	0.0	11.0	0	14,641,336	0	Low
Yaqui	79,162	2	8	1.9	61.5	33.0	3.0	2.1	99.9	0.0	0	173	0	X
Yukon	847,620	2	<1	0.0	64.0	27.6	0.4	0.0	0.0	27.8	1	1,249,832	0	Low
SOUTH AMERICA														
Amazon	6,145,186	7	4	14.1	73.4	10.2	0.6	0.1	4.0	8.3	3	273,767	0	Medium
Chubut	182,622	2	1	0.6	24.8	67.7	0.6	0.0	61.4	0.0	0	171,362	0	X
Lakes Titicaca & Salar de Uyuni	193,090	3	7	0.6	0.1	89.4	0.9	0.4	65.4	0.0	5	15,980	0	X
Magdalena	263,773	1	78	35.8	37.2	14.8	10.3	2.4	7.2	0.2	0	10,191	3	Medium
Orinoco	953,675	2	17	7.6	50.5	37.8	2.6	0.2	8.5	15.3	0	90,482	3	Medium
Paraná	2,582,704	4	27	43.3	18.1	33.0	4.2	0.5	9.9	10.9	7	8,025	4	High
Parnaíba	322,887	1	10	44.8	5.8	47.4	1.8	0.1	41.7	18.8	0	7,729	0	Medium
Rio Colorado	403,005	2	6	9.7	1.1	71.2	2.0	1.3	71.0	2.0	1	3,196	0	X
São Francisco	617,814	1	19	60.2	3.1	31.8	2.8	0.3	32.0	9.7	0	8,261	0	High
Tocantins	764,213	1	5	61.5	9.9	26.2	1.3	0.0	0.0	19.1	1	103,383	1	Medium
Uruguay	297,211	3	18	42.7	8.2	44.4	3.5	0.3	0.0	3.9	0	32,731	1	High
OCEANIA														
Belyando	146,219	1	1	2.2	3.6	93.5	0.6	1.3	42.6	0.3	1	239,338	0	X
Dawson	152,375	1	1	3.1	20.8	73.2	2.6	1.8	28.3	0.3	0	39,587	0	X
Fly	78,855	2	4	2.4	75.8	18.3	0.3	0.0	0.0	41.7	0	555,800	0	X
Kapuas	88,781	1	20	33.2	64.8	0.2	0.3	0.0	0.0	1.7	1	105,159	0	X
Mahakam	98,194	1	22	17.2	79.4	0.5	1.3	0.0	0.0	7.7	0	135,955	0	X
Murray-Darling	1,050,116	1	2	28.4	8.0	62.1	1.2	1.6	67.1	3.4	9	11,549	0	X
Sepik	80,321	2	10	6.6	76.3	15.1	0.1	0.0	0.0	33.8	0	143,175	0	X

Notes: Percentages presented in this table do not add up to 100 because different sources were used to estimate land cover and land use within watersheds, land cover types overlap, and not all land cover types were accounted for. Zero is either 0 or less than one-half the unit of measure. a. Watershed area was digitally derived from elevation data using a geographic information system; thus, area may differ from other published sources. b. Based on stable nighttime lights data. These figures overestimate the actual area lit. c. Sites designated as "wetlands of international importance" under the Convention on Wetlands. d. Indicates the level of modification of a river due to dams, reservoirs, interbasin transfers, and irrigation consumption. e. Countries that have <1 percent area in the watershed are excluded. f. Watershed includes intermittent tributaries in northern Chad, Niger, and Algeria. g. Watershed includes intermittent tributaries in Botswana (northern Kalahari Desert). h. Basin excludes the tidal area of the St. Lawrence River.

Sources: Various

	Carbon Dioxide (CO2) Emissions (000 metric tons)								Per Capita CO2 Emissions (kilograms) 1996	CO2 Emitted Per Million Int\$ (PPP) of Gross Domestic Product (a) (metric tons)		Signatory to the Kyoto Protocol 1999 (Yes/No)	
	Solid Fuels 1996	Liquid Fuels 1996	Gaseous Fuels 1996	Gas Flaring 1996	Cement Manufacturing 1996	Total 1990	Total 1996	Total Contribution Since 1950		1990	1996		
WORLD	9,013,440	9,497,088	4,382,144	245,488	740,128	22,361,392	23,881,952	718,514,064	4,157	X	X	X	
ASIA (EXCL. MIDDLE EAST)	4,251,273	2,201,364	555,697	10,936	423,960	5,194,233	7,452,030	145,131,386	2,296	X	X	X	
Armenia	15	1,528	2,015	0	141	X	3,697	130,452	b	1,037	X	425	N
Azerbaijan	15	18,166	11,736	0	100	X	30,019	1,637,062	b	3,945	X	2,621	N
Bangladesh	0	8,537	14,279	0	142	15,359	22,959	269,033		190	189	187	N
Bhutan	62	121	0	0	80	128	260	2,015		137	X	X	N
Cambodia	0	498	0	0	0	451	498	14,759		49	56	37	N
China	2,597,109	483,740	38,520	0	244,169	2,401,741	3,363,541	57,580,606		2,729	1,523	949	Y
Georgia	509	645	1,762	0	50	X	2,968	503,077	b	572	X	308	X c,d
India	677,411	229,213	50,230	2,549	37,981	675,261	997,385	15,516,498		1,050	710	652	N
Indonesia	42,026	108,290	74,643	7,641	12,458	165,210	245,056	3,538,050		1,223	447	365	Y
Japan	341,239	651,020	128,321	0	47,086	1,070,665	1,167,666	31,157,964		9,284	463	389	Y
Kazakhstan	122,968	31,913	17,715	0	1,246	X	173,846	10,119,364	b	10,577	X	3,134	Y
Korea, Dem People's Rep	234,741	11,113	0	0	8,471	244,634	254,326	4,954,149		11,249	X	X	N
Korea, Rep	125,459	229,436	24,596	0	28,570	241,179	408,060	4,988,074		8,999	X	X	Y
Kyrgyzstan	1,905	1,957	2,023	0	249	X	6,134	401,943	b	1,335	X	X	N
Lao People's Dem Rep	4	330	0	0	5	231	337	9,413		69	X	X	N
Malaysia	6,698	64,354	36,252	6	6,147	55,279	119,069	1,185,652	e	5,794	637	725	Y
Mongolia	7,159	1,667	0	0	53	9,981	8,882	219,349		3,560	2,751	2,368	N
Myanmar	169	3,851	3,026	15	252	4,148	7,310	177,209		168	X	X	N
Nepal	132	1,312	0	0	171	630	1,612	21,160		74	42	69	N
Pakistan	9,358	49,904	30,638	0	4,435	67,872	94,333	1,188,653		674	516	468	N
Philippines	6,046	51,215	0	0	5,980	44,305	63,241	1,228,649		905	246	256	Y
Singapore	117	64,076	0	0	1,644	41,920	65,835	981,736		19,505	958	801	N
Sri Lanka	4	6,625	0	0	451	3,855	7,079	155,068		391	137	163	N
Tajikistan	267	3,422	2,132	0	25	X	5,844	700,550	b	1,001	X	898	N
Thailand	45,932	117,658	24,329	0	17,441	95,740	205,360	1,899,256		3,471	433	501	Y
Turkmenistan	264	13,015	20,738	0	225	X	34,244	1,219,985	b	8,240	X	3,623	Y
Uzbekistan	3,158	19,427	69,902	0	2,492	X	94,978	3,772,482	b	4,157	X	1,656	Y
Viet Nam	14,777	16,821	15	X	2,840	22,464	37,644	766,842	f	501	X	318	Y
EUROPE	2,131,682	2,076,872	1,768,290	50,808	128,310	X	6,124,896	264,991,558		8,414	X	X	X
Albania	147	1,649	44	0	100	8,380	1,942	164,854		616	1,225	255	N
Austria	12,835	29,037	15,436	0	1,993	57,393	59,302	2,130,213		7,364	422	334	Y
Belarus	5,382	30,686	24,945	0	731	X	61,742	3,241,636	b	5,949	X	1,380	N
Belgium	31,888	43,118	27,040	0	3,986	97,437	106,032	4,923,287		10,489	538	467	Y
Bosnia and Herzegovina	942	1,583	484	0	100	X	3,111	X		909	X	X	N
Bulgaria	28,748	14,770	10,710	0	1,046	75,339	55,271	2,537,228		6,543	1,920	1,539	Y
Croatia	458	11,205	4,961	0	918	X	17,543	X		3,909	X	770	Y
Czech Rep	88,431	18,518	17,257	0	2,497	X	126,701	6,499,129	b	12,282	X	X	Y
Denmark	23,512	23,336	8,035	372	1,310	50,724	56,561	2,244,068		10,792	560	467	Y
Estonia	12,241	2,627	1,323	0	199	X	16,389	742,658	b	11,180	X	2,378	Y
Finland	28,488	23,424	6,789	0	472	51,072	59,174	1,658,982		11,544	605	600	Y
France	62,185	214,868	74,801	0	9,966	353,184	361,820	16,826,436		6,211	348	286	Y
Germany	350,956	322,066	167,350	919	19,932	X	861,223	42,689,711	g	10,514	X	499	Y
Greece	35,215	39,311	110	3	5,980	72,199	80,615	1,712,436		7,655	714	617	Y
Hungary	17,067	17,617	23,402	0	1,383	64,120	59,470	2,868,938		5,834	955	848	N
Iceland	242	1,913	0	0	40	2,019	2,195	70,547		8,099	431	370	N
Ireland	12,025	16,067	6,068	0	747	29,847	34,907	959,653		9,606	731	505	Y
Italy	42,821	238,043	105,421	0	16,942	398,852	403,231	12,319,486		7,029	427	349	Y
Latvia	967	6,379	1,799	0	134	X	9,281	454,055	b	3,714	X	1,015	Y
Lithuania	967	8,116	4,466	0	299	X	13,850	733,527	b	3,728	X	932	Y
Macedonia, FYR	8,028	4,411	0	0	274	X	12,714	X		6,438	X	2,006	N
Moldova, Rep	2,466	2,876	6,723	0	35	X	12,099	742,909	b	2,765	X	X	N
Netherlands	35,021	32,796	85,302	399	1,644	138,891	155,163	5,192,482		9,984	578	484	Y
Norway	3,807	20,819	7,357	34,232	797	47,669	67,015	1,787,369		15,327	670	640	Y
Poland	280,761	47,251	21,852	0	6,916	347,585	356,782	14,369,915		9,229	1,947	1,506	Y
Portugal	12,879	30,920	0	0	4,136	42,327	47,932	996,652		4,862	405	351	Y
Romania	40,330	35,537	40,000	0	3,417	155,071	119,282	5,528,382		5,270	1,610	1,142	Y
Russian Federation	484,546	338,865	732,393	9,859	13,853	X	1,579,514	68,412,659	b	10,681	X	X	Y
Slovakia	19,489	7,878	11,036	0	1,246	X	39,644	1,967,818	b	7,389	X	X	Y
Slovenia	3,257	7,786	1,502	0	498	X	13,040	X		6,537	X	575	Y
Spain	69,843	130,328	19,767	12	12,536	211,710	232,484	6,183,432		5,872	442	382	Y
Sweden	11,564	39,688	1,667	0	1,219	48,537	54,139	2,797,548		6,130	336	311	Y
Switzerland	550	36,046	5,437	0	2,193	42,689	44,224	1,525,906		6,144	281	250	Y
Ukraine	184,112	51,197	159,494	0	2,492	X	397,291	21,708,318	b	7,751	X	3,441	Y
United Kingdom	169,427	207,983	168,778	5,013	5,780	563,281	556,983	27,167,794		9,532	606	472	Y
Yugoslavia	23,831	6,126	5,141	0	1,099	X	36,197	3,299,234	h	3,413	X	X	N
MIDDLE EAST & N. AFRICA	104,241	765,021	399,574	72,170	67,379	1,057,086	1,408,390	24,846,874		3,792	X	X	X
Afghanistan	11	780	308	11	58	2,620	1,176	68,000		58	X	X	N
Algeria	3,188	22,651	50,567	14,400	3,488	80,443	94,297	1,725,913		3,283	755	728	N
Egypt	3,419	57,778	27,707	0	8,969	75,434	97,873	1,856,890		1,541	X	X	Y
Iran, Islamic Rep	3,873	153,936	77,549	23,082	8,222	212,354	266,662	5,056,708		4,201	X	X	N
Iraq	0	84,023	6,221	96	1,046	49,262	91,387	1,493,703		4,435	X	X	N
Israel	21,068	28,847	26	0	2,392	34,628	52,329	907,258		9,145	557	503	Y
Jordan	0	11,989	0	0	1,744	10,182	13,733	203,696		2,313	1,142	908	N
Kuwait	0	23,145	17,463	986	997	42,206	42,590	981,102		25,257	2,614	X	N
Lebanon	542	11,879	0	0	1,744	9,094	14,165	263,654		4,594	855	597	N
Libyan Arab Jamahiriya	15	25,348	9,966	3,482	1,769	37,772	40,579	555,830		7,978	X	X	N
Morocco	6,225	18,426	40	0	3,189	23,486	27,879	558,859		1,055	345	301	N
Oman	0	4,752	9,065	726	598	11,538	15,143	228,051		6,791	831	X	N
Saudi Arabia	0	156,343	79,351	23,948	8,191	177,096	267,831	4,107,234		14,225	1,168	1,338	N
Syrian Arab Rep	11	32,782	5,016	4,437	2,043	35,845	44,290	738,717		3,040	X	X	N
Tunisia	238	9,167	4,250	254	2,276	13,260	16,184	318,035		1,782	428	364	N
Turkey	65,600	80,901	15,649	0	16,195	143,819	178,342	3,212,251		2,861	554	474	N
United Arab Emirates	0	21,460	56,645	750	2,990	58,433	81,843	1,202,675		36,220	1,534	X	N
Yemen	0	16,488	0	0	518	9,603	17,008	247,111	i	1,085	X	X	N

Data Table AC.1 continued

	Carbon Dioxide (CO ₂) Emissions (000 metric tons)								Per Capita Carbon Emissions (kilograms)	CO ₂ Emitted Per Million Int\$ (PPP) of Gross Domestic Product (a) (metric tons)		Signatory to the Kyoto Protocol 1999 (Yes/No)
	Solid Fuels 1996	Liquid Fuels 1996	Gaseous Fuels 1996	Gas Flaring 1996	Cement Manufacturing 1996	Total 1990	Total 1996	Total Contribution Since 1990		1990	1996	
SUB-SAHARAN AFRICA	268,395	170,270	14,070	54,136	12,685	466,991	519,548	12,928,091	894	X	X	X
Angola	0	2,151	344	2,465	149	4,650	5,108	145,552	450	291	288	N
Benin	0	465	0	0	189	564	656	14,762	120	122	94	N
Botswana	6,383	12,579	4	9	691	2,415	19,665	51,505	13,035	337	1,778	N
Burkina Faso	0	967	0	0	0	1,008	967	14,682	90	146	96	N
Burundi	18	202	0	0	0	194	220	3,975	35	46	54	N
Cameroon	4	3,213	0	0	299	1,488	3,517	86,507	260	65	139	N
Central African Rep.	0	234	0	0	0	198	234	5,866	70	X	X	N
Chad	0	99	0	0	0	143	99	5,027	14	35	15	N
Congo	0	4,741	7	167	50	2,037	4,961	40,161	1,884	X	X	N
Congo, Dem Rep	854	1,436	0	0	5	4,096	2,294	142,475	49	X	X	N
Côte d'Ivoire	0	12,817	0	0	249	9,907	13,066	185,109	946	X	X	N
Equatorial Guinea	0	143	0	0	0	117	143	2,862	349	X	X	N
Eritrea	X	X	X	X	X	X	X	X	X	X	X	N
Ethiopia	0	3,048	0	0	320	2,964	3,367	66,509	59	144	117	N
Gabon	0	2,041	1,587	0	65	6,112	3,690	135,432	3,333	1,019	437	N
Gambia	0	216	0	0	0	191	216	4,481	188	X	X	N
Ghana	7	3,342	0	0	698	3,539	4,045	109,271	223	187	142	N
Guinea	0	1,092	0	0	0	1,011	1,092	32,445	150	126	88	N
Guinea-Bissau	0	231	0	0	0	209	231	4,477	208	X	X	N
Kenya	267	5,760	0	0	747	5,822	6,775	180,020	243	228	203	N
Lesotho	X	X	X	X	X	X	X	X	X	X	X	N
Liberia	0	326	0	0	0	465	326	33,189	148	X	X	N
Madagascar	44	1,121	0	0	30	945	1,198	37,860	84	87	94	N
Malawi	44	616	0	0	70	601	733	18,184	75	127	105	N
Mali	0	462	0	0	10	421	473	12,025	46	81	66	Y
Mauritania	15	2,876	0	0	60	2,634	2,950	40,648	1,232	943	720	N
Mozambique	158	821	0	0	15	997	997	89,149	56	132	91	N
Namibia	X	X	X	X	X	X	X	X	X	X	X	N
Niger	458	649	0	0	15	1,048	1,121	20,863	119	162	139	Y
Nigeria	150	21,596	8,596	51,494	1,495	88,665	83,330	1,944,327	822	1,196	802	N
Rwanda	0	484	0	2	5	528	491	9,167	90	96	105	N
Senegal	0	2,770	0	0	294	2,895	3,063	76,142	358	263	211	N
Sierra Leone	0	447	0	0	0	333	467	19,844	104	128	182	N
Somalia	0	0	0	0	15	18	15	13,747	2	X	X	N
South Africa	227,707	56,821	3,532	0	4,684	291,108	292,746	8,541,575	7,678	1,236	986	N
Sudan	0	3,283	0	0	189	3,459	3,473	137,001	128	148	83	N
Tanzania, United Rep	15	2,030	0	0	399	2,272	2,444	61,694	80	166	146	N
Togo	0	575	0	0	174	689	751	17,023	180	140	121	N
Uganda	0	986	0	0	50	846	1,033	32,837	53	67	46	N
Zambia	773	1,499	0	0	174	2,444	2,444	111,151	291	344	277	Y
Zimbabwe	13,623	4,217	0	0	573	16,646	18,412	369,232	1,667	818	705	N
NORTH AMERICA	2,012,492	2,279,862	1,354,255	18,726	45,005	5,233,610	5,710,344	200,969,374	19,074	X	X	X
Canada	94,927	148,293	156,434	4,190	5,506	409,628	409,353	14,855,347	13,669	790	622	Y
United States	1,917,565	2,131,569	1,197,820	14,535	39,499	4,823,982	5,300,991	186,114,027	19,674	858	706	Y
C. AMERICA & CARIBBEAN	20,196	367,202	81,885	6,560	16,832	411,973	499,033	11,518,037	3,078	X	X	X
Belize	0	355	0	0	0	311	355	7,478	1,624	469	368	N
Costa Rica	0	4,192	0	0	493	2,917	4,683	85,756	1,282	188	209	Y
Cuba	509	29,854	84	0	724	31,818	31,170	1,018,401	2,829	X	X	Y
Dominican Rep.	341	11,805	0	0	747	9,435	12,890	237,779	1,619	X	X	N
El Salvador	0	3,572	0	0	472	2,616	4,045	82,535	699	254	245	Y d
Guatemala	0	6,210	22	0	543	5,086	6,775	138,961	661	181	163	Y d
Haiti	0	1,048	0	0	25	993	1,070	25,238	139	107	114	N
Honduras	0	3,550	0	0	479	2,590	4,027	72,591	692	268	315	Y
Jamaica	169	9,603	0	0	277	7,958	10,050	234,650	4,029	1,069	1,113	X c,d
Mexico	17,910	248,104	67,165	3,549	11,376	294,974	348,106	7,760,957	3,754	525	470	Y
Nicaragua	0	2,686	0	0	174	2,601	2,862	70,015	629	455	322	Y
Panama	150	6,240	174	0	174	3,129	6,679	129,933	2,495	259	357	Y d
Trinidad and Tobago	0	4,536	14,385	3,010	307	16,924	22,237	489,957	17,508	2,521	2,570	Y d
SOUTH AMERICA	73,514	460,568	143,413	24,600	33,789	572,181	735,885	17,875,788	2,260	X	X	X
Argentina	3,019	63,853	54,502	5,929	2,550	109,729	129,852	3,853,154	3,687	519	381	Y
Bolivia	0	4,639	3,239	1,759	465	5,500	10,102	159,637	1,330	377	468	Y
Brazil	44,642	197,585	10,622	3,284	17,240	202,612	273,371	5,706,610	1,692	273	266	Y
Chile	11,439	31,573	3,635	321	1,811	36,263	48,779	1,076,150	3,383	383	278	Y
Colombia	11,871	38,901	9,658	719	4,159	55,850	65,307	1,589,993	1,662	313	246	N
Ecuador	0	20,918	1,271	960	1,334	16,569	24,487	421,888	2,093	408	428	Y
Guyana	0	953	0	0	0	1,132	953	51,915	1,138	848	379	N
Paraguay	0	3,386	0	0	309	2,261	3,697	53,960	746	163	204	Y d
Peru	1,447	22,416	352	43	1,917	22,175	26,176	771,034	1,093	357	244	Y
Suriname	0	2,074	0	0	25	1,810	2,099	63,647	5,115	X	X	N
Uruguay	4	5,298	0	0	341	3,909	5,643	217,601	1,741	200	196	Y
Venezuela	1,092	68,055	60,134	11,584	3,638	113,569	144,501	3,897,477	6,477	798	765	N
OCEANIA	198,424	92,047	48,061	0	3,833	295,524	342,360	8,582,495	11,842	X	X	X
Australia	192,774	72,723	37,897	0	3,239	266,010	306,633	7,622,743	16,902	1,011	820	N
Fiji	59	660	0	0	46	813	762	23,058	981	326	230	Y d
New Zealand	5,141	14,110	10,003	0	498	23,596	29,752	791,083	7,997	508	463	Y
Papua New Guinea	4	2,246	161	0	0	2,429	2,407	56,202	547	X	X	Y
Solomon Islands	0	161	0	0	0	161	161	3,488	412	263	171	Y

Notes: Negative values are shown in parentheses. Zero is either 0 or less than one-half the unit of measure. a. Gross domestic product figures are calculated using purchasing power parity (PPP) and are in current international dollars. b. Data are estimated for the countries of the former Soviet Union and former Czechoslovakia before 1992. (See technical notes for further explanation.) c. Country went straight to ratification. d. Country has ratified the Kyoto Protocol. e. Includes Singapore until 1957. f. Data before 1970 refer to the Democratic Republic of Viet Nam and South Viet Nam. g. Data before 1991 refer to the Democratic Republic of Germany and the Federal Republic of Germany. h. Data include Bosnia and Herzegovina, Croatia, Macedonia (FYR), Slovenia, Yugoslavia, and the former Socialist Federal Republic of Yugoslavia. i. Data before 1991 refer to the People's Democratic Republic of Yemen and the Republic of Yemen.

Source: Carbon Dioxide Information Analysis Center

	Sulfur Dioxide (000 metric tons)			Nitrogen Oxides (000 metric tons)			Carbon Monoxide (000 metric tons)			Volatile Organic Compounds (000 metric tons)		
	1980	1990	1996	1980	1990	1996	1980	1990	1996	1980	1990	1996
ASIA (EXCL. MIDDLE EAST)	X	X	X	X	X	X	X	X	X	X	X	X
Armenia	X	72	2	X	46	11	X	304	125	X	81	18
EUROPE	X	X	X	X	X	X	X	X	X	X	X	X
Austria	400	91	52	231	194	163	1,690	1,287	1,021	355	351	261
Belarus	740	637	246	234	285	173	X	1,722	1,242	549	533	328
Belgium	828	322	240	442	343	334	X	1,631	1,434	X	358	324
Bosnia and Herzegovina	X	480	X	X	X	X	X	X	X	X	X	X
Bulgaria	2,050	2,020	1,420	X	376	259	X	891	613	X	217	147
Croatia	150	180	58	X	87	67	X	651	375	X	105	79
Czech Rep	2,257	1,876	946	937	742	432	894	1,055	886	X	435	284
Denmark	450	182	186	282	282	288	681	794	597	203	178	136
Finland	584	260	105	295	300	267	660	556	430	X	209	173
France	3,338	1,298	1,031	1,823	1,585	1,641	9,216	10,736	8,850	X	2,404	2,570
Germany (a)	7,514	5,313	1,543	3,334	2,693	1,887	14,046	11,165	6,717	3,224	3,195	1,877
Greece	400	509	543	X	343	374	X	1,338	1,334	X	373	409
Hungary	1,633	1,010	673	273	238	196	1,019	767	727	215	205	150
Iceland	18	24	X	X	20	X	X	26	X	X	6	X
Ireland	222	178	147	73	115	121	X	429	307	X	197	103
Italy	3,757	1,651	X	1,638	1,938	X	7,588	8,003	X	2,179	2,213	X
Latvia	X	119	59	X	93	35	X	388	176	X	152	41
Lithuania	311	222	93	152	158	65	541	521	312	108	111	87
Macedonia, FYR	X	X	X	X	X	X	X	X	X	X	X	X
Moldova, Rep	308	231	X	58	39	X	136	193	X	X	11	X
Netherlands	490	202	135	583	580	501	X	1,143	903	X	502	362
Norway	140	53	34	189	222	223	896	858	720	176	301	369
Poland	4,100	3,210	2,368	1,229	1,280	1,154	X	7,406	4,837	1,036	831	766
Portugal	266	362	X	X	348	X	X	1,020	X	X	640	X
Romania	1,055	1,311	X	523	546	X	3,245	3,186	X	673	616	X
Russian Federation	7,161	4,460	2,685	1,734	3,600	2,467	13,520	13,174	9,312	2,843	3,566	2,576
Slovakia	780	543	227	X	225	130	X	487	346	X	149	105
Slovenia	234	194	110	51	62	70	68	79	95	X	42	X
Spain	3,319	2,266	X	950	1,177	X	X	4,752	X	X	1,134	X
Sweden	491	119	83	404	338	302	X	1,210	1,082	X	526	446
Switzerland	116	43	30	170	166	130	1,280	707	485	323	292	203
Ukraine	3,849	2,782	1,293	1,145	1,097	467	X	8,141	2,567	X	1,369	718
United Kingdom	4,862	3,731	2,017	2,511	2,686	2,029	7,642	7,111	5,000	2,309	2,552	2,046
Yugoslavia	406	508	434	47	66	57	X	X	X	X	X	X
MIDDLE EAST & N. AFRICA	X	X	X	X	X	X	X	X	X	X	X	X
Turkey	860	X	X	275	497	X	X	X	X	X	X	X
NORTH AMERICA	X	X	X	X	X	X	X	X	X	X	X	X
Canada	4,643	3,236	2,722	1,959	2,104	2,011	10,273	10,596	X	2,099	2,880	X
United States	23,501	20,989	17,339	22,501	21,584	21,222	105,872	87,576	80,579	23,596	19,037	17,315

Note: a. The figures for 1980 are the combined figures from the German Democratic Republic and the Federal Republic of Germany.

Source: Co-Operative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe

Years	Carbon Dioxide (CO ₂) ppm	Methane (CH ₄) ppb	Nitrous Oxide (N ₂ O) ppb	Carbon Tetra- Chloride (CCl ₄) ppt	Methyl Chloro- form (CH ₃ CCl ₃) ppt	CFC-11 (CCl ₃ F) ppt	CFC-12 (CCl ₂ F ₂) ppt	CFC-113 (C ₂ Cl ₃ F ₃) ppt	Total Gaseous Chlorine ppt
Preindustrial (1860)	286-288 a	848 b	285 c	0	0	0	0	0	0
1965	320	X	X	X	X	X	X	X	X
1966	321	X	X	X	X	X	X	X	X
1967	322	X	X	X	X	X	X	X	X
1968	323	X	X	X	X	X	X	X	X
1969	324	X	X	X	X	X	X	X	X
1970	326	X	X	X	X	X	X	X	X
1971	326	X	X	X	X	X	X	X	X
1972	327	X	X	X	X	X	X	X	X
1973	330	X	X	X	X	X	X	X	X
1974	330	X	X	X	X	X	X	X	X
1975	331	X	X	X	X	X	X	X	X
1976	332	X	X	X	X	X	X	X	X
1977	334	X	X	X	X	X	X	X	X
1978	335	X	298 d	88 d	57 d	139 d	257 d	X	1,453 e, f
1979	337	X	298	87	62	147	272	X	1,522 f
1980	339	X	299	89	69	158	293	X	1,624 f
1981	340	X	299	90	75	166	305	X	1,692 f
1982	341	X	301	92	81	175	325	26 g	1,865 h
1983	343	X	302	93	85	182	341	28	1,939
1984	344	X	303	94	88	190	355	31	2,016
1985	346	X	304	96	92	200	376	36	2,121
1986	347	1,600 i	305	97	96	210	394	40	2,216
1987	349	1,610	305	99	98	221	413	48	2,322
1988	351	1,619	306	100	103	231	433	53	2,425
1989	353	1,641	306	100	107	240	452	59	2,524
1990	354	1,645	306	101	110	249	470	66	2,620
1991	355	1,657	307	101	113	254	484	71	2,685
1992	356	1,673	308	101	116	259	496	77	2,751
1993	357	1,671	308	101	112	260	503	80	2,764
1994	359	1,674	309	100	106	261	512	81	2,769
1995	361	1,681	309	99	97	261	518	82	2,753
1996	363	1,684	310	98	85	261	523	82	2,725
1997	364	1,690	311	97	73	260	528	83	2,693
1998	367	1,693	311	96	64	259	530	82	2,664

Notes: All estimates are by volume; ppb = parts per billion, ppm = parts per million, and ppt = parts per trillion. a. Historical CO₂ record from the Siple Station and Law Dome ice core records. b. Historical CH₄ record from the Law Dome (East Side, "DE08" site), Antarctica, ice core. c. Historical N₂O record from the Law Dome (Summit, "BHD" site) ice core. d. Annual average only includes the months of July through December. e. Annual average only includes the months of July through December for carbon tetrachloride, methyl chloroform, CFC-11, and CFC-12. f. Annual average only includes carbon tetrachloride, methyl chloroform, CFC-11, and CFC-12. g. Annual average only includes the months of June through December. h. Annual average includes carbon tetrachloride, methyl chloroform, CFC-11, CFC-12, and CFC-113. The CFC-113 figure only includes data from June through December. i. Annual average only includes the months of May through December. j. Annual average only includes the months of January through September.

Source: Carbon Dioxide Information Analysis Center

	Energy Production								Total Electricity Generated	
	From All Sources			From Non-Renewable Energy Sources (a)						
	(1000 metric toe) (b)	Percent Change Since 1987	Per Capita (kg oil equivalent) 1997	Solid Fuels (1000 metric toe) (b) 1997	Liquid Fuels (1000 metric toe) (b) 1997	Gaseous Fuels (1000 metric toe) (b) 1997	Nuclear Fuels (1000 metric toe) (b) 1997	Other Sources (1000 metric toe) (b) 1997	(1000 metric toe) (b) 1997	Percent Change Since 1987
	1997	1987	1997	1997	1997	1997	1997	1997	1997	1987
WORLD	9,664,837	17	1,660	2,274,208	3,530,469	1,916,758	624,162	X	1,199,591	32
ASIA (EXCL. MIDDLE EAST)	2,321,274	28	705	938,270	389,545	248,231	119,586	X	313,682	80
Armenia	537	(57)	151	0	0	0	417	0	518	(60)
Azerbaijan	14,027	(42)	1,836	0	9,066	4,829	0	0	1,445	(27)
Bangladesh	21,894	27	179	0	7	5,794	0	0	1,020	112
Bhutan	X	X	X	X	X	X	X	X	X	X
Cambodia	X	X	X	X	X	X	X	X	X	X
China	1,097,160	36	882	686,410	160,741	21,134	3,757	0	97,565	128
Georgia	694	(59)	136	2	135	2	0	0	617	(51)
India	404,503	35	419	147,233	37,586	17,815	2,632	0	39,853	112
Indonesia	221,549	52	1,089	33,888	77,291	63,043	0	0	6,436	236
Japan	106,895	48	848	2,356	795	2,009	83,148	83	88,536	44
Kazakhstan	64,784	(30)	3,957	32,009	25,568	6,574	0	0	4,472	(41)
Korea, Dem People's Rep	20,461	(38)	890	17,564	0	0	0	X	2,923	(32)
Korea, Rep	24,037	10	526	2,030	0	0	20,089	0	20,987	230
Kyrgyzstan	1,408	(36)	305	320	85	34	0	0	1,084	35
Lao People's Dem Rep	X	X	X	X	X	X	X	X	X	X
Malaysia	73,979	78	3,526	153	38,039	33,096	0	0	4,977	241
Mongolia	X	X	X	X	X	X	X	X	X	X
Myanmar	12,249	14	279	9	400	1,428	0	0	362	81
Nepal	6,559	25	294	0	0	0	0	0	105	120
Pakistan	42,048	39	292	1,413	2,918	13,434	90	0	5,085	106
Philippines	16,616	14	233	446	16	5	0	0	3,424	76
Singapore	61	X	18	0	0	0	0	0	2,313	126
Sri Lanka	4,345	9	238	0	0	0	0	0	442	90
Tajikistan	1,253	(38)	211	4	26	34	0	0	1,204	(12)
Thailand	46,166	124	773	6,785	5,707	12,406	0	0	8,020	225
Turkmenistan	18,739	(76)	4,427	0	4,723	14,016	0	0	808	(29)
Uzbekistan	49,054	33	2,113	1,037	7,798	39,722	0	0	3,961	(16)
Viet Nam	43,525	108	570	6,550	9,875	3,311	0	0	1,647	216
EUROPE	2,221,880	(10)	3,051	416,434	648,575	720,694	300,479	X	352,135	1
Albania	912	(69)	291	16	357	15	0	0	482	27
Austria	8,007	0	989	294	1,018	1,215	0	0	4,777	12
Belarus	3,275	0	316	553	1,831	204	0	0	2,241	(30)
Belgium	12,933	(8)	1,277	219	0	0	12,355	219	6,713	25
Bosnia and Herzegovina	626	143	178	348	0	0	0	0	189	(84)
Bulgaria	9,981	(1)	1,189	4,895	28	28	4,633	0	3,574	(4)
Croatia	4,011	122	894	29	1,800	1,402	0	0	833	3
Czech Rep	30,989	(30)	3,008	26,955	439	163	3,256	550	5,523	3
Denmark	20,260	152	3,855	14	11,587	6,956	0	14	3,809	50
Estonia	3,421	X	2,364	2,795	367	0	0	367	793	(49)
Finland	15,039	41	2,925	2,627	64	0	5,445	20	5,949	30
France	127,520	33	2,181	4,432	2,198	2,126	103,065	323	42,904	33
Germany	139,678	(30)	1,702	70,224	3,461	16,074	44,406	56	47,127	3
Greece	9,645	20	913	7,709	476	45	0	0	3,723	44
Hungary	12,747	(24)	1,255	3,299	1,992	3,355	3,640	0	3,044	19
Iceland	1,481	20	5,414	0	0	0	0	0	480	33
Ireland	2,871	(5)	785	740	0	1,906	0	0	1,694	56
Italy	29,311	23	511	12	6,175	15,775	0	0	21,200	24
Latvia	1,636	343	665	78	0	0	0	0	387	(24)
Lithuania	3,970	62	1,072	18	213	0	3,196	0	1,237	(37)
Macedonia, FYR	1,700	70	856	1,423	0	0	0	0	578	88
Moldova, Rep	98	362	22	0	0	0	0	0	453	(69)
Netherlands	65,298	5	4,182	0	3,040	60,574	628	0	7,453	27
Norway	212,653	145	48,378	259	160,788	41,007	0	0	9,501	6
Poland	99,474	(21)	2,571	92,033	366	3,203	0	1,461	12,119	(2)
Portugal	2,317	19	235	0	0	0	0	0	2,934	70
Romania	31,013	(41)	1,375	6,229	6,579	11,905	1,407	0	4,915	(23)
Russian Federation	927,261	(25)	6,280	101,118	305,520	461,124	28,774	80	71,644	(20)
Slovakia	4,688	(14)	873	1,146	65	225	2,814	0	2,092	5
Slovenia	2,870	0	1,438	1,052	1	9	1,308	0	1,132	5
Spain	31,316	12	791	9,796	378	163	14,411	42	15,975	40
Sweden	33,067	12	3,734	252	0	0	18,224	0	12,850	2
Switzerland	10,993	12	1,516	0	0	0	6,640	0	5,299	5
Ukraine	81,175	(45)	1,590	39,590	4,588	15,204	20,701	0	15,293	(37)
United Kingdom	268,119	11	4,580	29,611	134,242	77,457	25,577	867	29,572	14
Yugoslavia	11,481	543	1,080	8,668	1,000	557	0	0	3,467	230
MIDDLE EAST & N. AFRICA	1,497,312	55	3,952	13,938	1,241,839	223,169	X	X	50,805	84
Afghanistan	X	X	X	X	X	X	X	X	X	X
Algeria	125,576	37	4,272	0	61,670	63,381	0	0	1,865	70
Egypt	57,997	9	896	0	44,640	11,070	0	0	4,958	52
Iran, Islamic Rep	224,935	68	3,480	567	184,550	38,398	0	0	8,238	107
Iraq	62,088	(45)	2,931	0	58,311	3,701	0	0	2,542	31
Israel	601	66	103	42	26	13	0	0	3,018	101
Jordan	193	698	31	0	0	189	0	0	539	80
Kuwait	116,087	52	67,022	0	111,633	4,455	0	0	2,330	50
Lebanon	207	31	66	0	0	0	0	0	732	85
Libyan Arab Jamahiriya	78,942	43	15,151	0	73,067	5,750	0	0	1,563	17
Morocco	836	3	31	211	242	23	0	231	1,129	64
Oman	51,620	64	22,391	0	46,921	4,699	0	0	629	116
Saudi Arabia	487,095	96	25,006	0	449,511	37,584	0	0	8,927	105
Syrian Arab Rep	32,794	154	2,194	0	29,860	2,066	0	0	1,544	125
Tunisia	6,655	2	723	0	4,013	1,466	0	0	686	75
Turkey	27,556	11	435	13,118	3,525	208	0	0	8,883	133
United Arab Emirates	153,555	68	66,553	0	123,003	30,552	0	0	1,769	51
Yemen	19,105	X	1,173	0	19,028	0	0	0	203	102

	Energy Production									Total Electricity Generated	
	From All Sources			From Non-Renewable Energy Sources (a)							
	(1000 metric toe) (b) 1997	Percent Change Since 1987	Per Capita (kg oil equivalent) 1997	Solid Fuels (1000 metric toe) (b) 1997	Liquid Fuels (1000 metric toe) (b) 1997	Gaseous Fuels (1000 metric toe) (b) 1997	Nuclear Fuels (1000 metric toe) (b) 1997	Other Sources (1000 metric toe) (b) 1997	(1000 metric toe) (b) 1997	Percent Change Since 1987	
SUB-SAHARAN AFRICA	X	X	X	X	X	X	X	X	X	X	X
Angola	41,430	89	3,537	0	35,700	465	0	0	0	95	37
Benin	1,897	8	337	0	67	0	0	0	0	4	92
Botswana	X	X	X	X	X	X	X	X	X	X	X
Burkina Faso	X	X	X	X	X	X	X	X	X	X	X
Burundi	X	X	X	X	X	X	X	X	X	X	X
Cameroon	11,250	(7)	808	0	6,357	0	0	0	0	269	25
Central African Rep	X	X	X	X	X	X	X	X	X	X	X
Chad	X	X	X	X	X	X	X	X	X	X	X
Congo	13,540	89	4,998	0	12,638	3	0	0	0	37	53
Congo, Dem Rep	14,364	29	299	56	1,315	0	0	0	0	517	11
Côte d'Ivoire	4,908	31	349	0	803	0	0	0	0	276	55
Equatorial Guinea	X	X	X	X	X	X	X	X	X	X	X
Eritrea	X	X	X	X	X	X	X	X	X	X	X
Ethiopia	16,316	27	280	0	0	0	0	0	0	115	50
Gabon	19,786	129	17,403	0	18,794	68	0	0	0	87	13
Gambia	X	X	X	X	X	X	X	X	X	X	X
Ghana	5,843	48	313	0	361	0	0	0	0	529	26
Guinea	X	X	X	X	X	X	X	X	X	X	X
Guinea-Bissau	X	X	X	X	X	X	X	X	X	X	X
Kenya	11,651	20	410	0	0	0	0	0	0	364	60
Lesotho	X	X	X	X	X	X	X	X	X	X	X
Liberia	X	X	X	X	X	X	X	X	X	X	X
Madagascar	X	X	X	X	X	X	X	X	X	X	X
Malawi	X	X	X	X	X	X	X	X	X	X	X
Mali	X	X	X	X	X	X	X	X	X	X	X
Mauritania	X	X	X	X	X	X	X	X	X	X	X
Mozambique	6,994	(1)	379	0	0	0	0	0	0	86	199
Namibia	X	X	X	X	X	X	X	X	X	X	X
Niger	X	X	X	X	X	X	X	X	X	X	X
Nigeria	191,034	55	1,839	86	117,249	4,429	0	0	0	1,305	35
Rwanda	X	X	X	X	X	X	X	X	X	X	X
Senegal	1,654	32	189	0	0	20	0	0	0	108	52
Sierra Leone	X	X	X	X	X	X	X	X	X	X	X
Somalia	X	X	X	X	X	X	X	X	X	X	X
South Africa	142,139	27	3,667	124,678	401	1,543	3,296	0	0	17,866	38
Sudan	9,881	18	356	0	259	0	0	0	0	169	43
Tanzania, United Rep	13,529	23	431	3	0	0	0	0	0	166	52
Togo	X	X	X	X	X	X	X	X	X	X	X
Uganda	X	X	X	X	X	X	X	X	X	X	X
Zambia	5,556	16	647	106	0	0	0	0	0	689	(8)
Zimbabwe	8,152	9	727	2,712	0	0	0	0	0	628	15
NORTH AMERICA	2,046,512	11	6,776	604,959	516,778	579,512	195,194	0	0	365,125	32
Canada	362,701	44	11,986	43,032	120,156	137,397	21,536	0	0	49,453	16
United States	1,683,811	6	6,196	561,928	396,622	442,115	173,658	0	0	315,672	35
C. AMERICA & CARIBBEAN	259,862	18	1,575	4,970	181,633	35,102	2,725	X	X	20,028	64
Belize	X	X	X	X	X	X	X	X	X	X	X
Costa Rica	1,157	14	309	0	0	0	0	0	0	482	79
Cuba	7,255	48	655	0	1,685	18	0	0	0	1,211	4
Dominican Rep	1,423	(0)	176	0	0	0	0	0	0	631	57
El Salvador	2,649	34	448	0	0	0	0	0	0	313	90
Guatemala	4,433	47	421	0	1,080	0	0	0	0	421	148
Haiti	1,298	4	166	0	0	0	0	0	0	54	27
Honduras	2,003	28	335	0	0	0	0	0	0	283	81
Jamaica	595	133	237	0	0	0	0	0	0	538	237
Mexico	223,132	16	2,367	4,970	172,149	28,255	2,725	0	0	15,054	68
Nicaragua	1,529	23	327	0	0	0	0	0	0	164	47
Panama	808	37	297	0	0	0	0	0	0	357	47
Trinidad and Tobago	13,579	17	10,635	0	6,719	6,828	0	0	0	429	43
SOUTH AMERICA	529,055	58	1,600	26,396	320,514	73,038	2,883	X	X	53,576	55
Argentina	80,134	90	2,246	148	44,801	28,059	2,057	0	0	6,187	46
Bolivia	5,953	33	766	0	1,876	3,003	0	0	0	295	99
Brazil	120,236	23	734	2,162	45,988	5,288	826	0	0	26,428	51
Chile	8,168	18	558	709	520	1,619	0	0	0	2,923	117
Colombia	67,524	70	1,686	19,934	34,164	5,339	0	0	0	3,966	47
Ecuador	22,792	118	1,909	0	21,072	0	0	0	0	825	78
Guyana	X	X	X	X	X	X	X	X	X	X	X
Paraguay	6,960	90	1,368	0	0	0	0	0	0	4,353	172
Peru	12,225	(14)	502	29	5,946	768	0	0	0	1,544	28
Suriname	X	X	X	X	X	X	X	X	X	X	X
Uruguay	1,086	(14)	332	0	0	0	0	0	0	615	(6)
Venezuela	203,979	77	8,955	3,414	166,146	28,962	0	0	0	6,438	38
OCEANIA	213,325	38	7,282	140,939	31,034	30,254	0	X	X	18,861	36
Australia	199,167	37	10,864	138,967	27,885	25,550	0	0	0	15,700	39
Fiji	X	X	X	X	X	X	X	X	X	X	X
New Zealand	14,158	44	3,764	1,972	3,149	4,704	0	0	0	3,161	25
Papua New Guinea	X	X	X	X	X	X	X	X	X	X	X
Solomon Islands	X	X	X	X	X	X	X	X	X	X	X
DEVELOPED	4,881,847	(0)	3,774	1,322,778	1,245,011	1,399,236	582,534	X	X	859,650	17
DEVELOPING	4,712,931	44	1,042	950,711	2,277,537	517,294	41,628	X	X	337,357	99

Notes: Negative values are shown in parentheses. Zero is either 0 or less than one-half the unit measure. (0) indicates a value less than 0 and greater than negative one-half.

a. See ERC.4 for data on renewable energy. b. Tons of oil equivalent. See technical notes for more information on toe.

Source: International Energy Agency

	Energy Consumption							Final Consumption of Electricity (1000 toe) (b) 1997	Trade in Energy	
	From all Sources			From Non-Renewable Energy Sources (a)					Imports (1000 metric toe) (b) 1997	Exports (1000 metric toe) (b) 1997
	(1000 metric toe) (b) 1997	Percent Change Since 1987	Per Capita (kg oil equivalent) 1997	Solid Fuels (1000 metric toe) (b) 1997	Liquid Fuels (1000 metric toe) (b) 1997	Gaseous Fuels (1000 metric toe) (b) 1997	Nuclear Fuels (1000 metric toe) (b) 1997			
WORLD	9,521,506	16	1,635	2,254,969	3,409,241	1,911,171	624,162	986,677	3,454,233	3,419,104
ASIA (EXCL. MIDDLE EAST)	2,958,844	36	899	1,028,240	926,399	258,379	119,586	254,119	1,076,015	392,653
Armenia	1,804	(77)	508	2	155	1,110	417	371	1,267	0
Azerbaijan	11,987	(63)	1,568	3	6,951	4,829	0	1,099	461	2,502
Bangladesh	24,327	28	198	0	2,440	5,794	0	813	2,440	0
Bhutan	X	X	X	X	X	X	X	X	X	X
Cambodia	X	X	X	X	X	X	X	X	X	X
China	1,098,931	42	883	658,083	193,761	18,825	3,757	72,534	66,531	53,769
Georgia	2,295	(63)	448	2	955	767	0	533	1,841	176
India	461,032	45	477	153,279	87,937	17,815	2,632	30,018	59,162	2,376
Indonesia	138,779	71	682	9,545	50,503	31,506	0	5,674	23,282	106,647
Japan	514,898	37	4,085	86,532	271,600	54,948	83,148	78,524	427,020	10,557
Kazakhstan	38,418	(65)	2,346	21,888	9,119	6,201	0	3,515	4,673	31,038
Korea, Dem People's Rep	23,323	(39)	1,015	18,959	1,466	0	0	468	X	301
Korea, Rep	176,351	166	3,856	32,799	108,245	13,326	20,089	19,172	190,773	31,247
Kyrgyzstan	2,793	45	605	959	500	512	0	547	2,218	833
Lao People's Dem Rep	X	X	X	X	X	X	X	X	X	X
Malaysia	48,473	161	2,310	1,581	25,026	19,191	0	4,383	13,718	39,025
Mongolia	X	X	X	X	X	X	X	X	X	X
Myanmar	13,009	23	296	9	1,307	1,281	0	215	953	7
Nepal	7,160	30	321	71	531	0	0	75	610	22
Pakistan	56,818	51	394	2,045	17,056	13,434	90	3,673	15,110	241
Philippines	38,251	55	536	2,648	19,449	5	0	2,734	22,269	1,344
Singapore	26,878	202	7,843	0	25,541	1,275	0	2,120	90,301	47,725
Sri Lanka	7,159	35	392	1	2,813	0	0	362	3,288	203
Tajikistan	3,384	61	571	48	1,228	851	0	1,127	2,512	381
Thailand	79,963	157	1,339	8,631	37,595	12,406	0	7,089	40,546	5,830
Turkmenistan	12,181	(84)	2,878	0	3,659	8,750	0	374	845	7,403
Uzbekistan	42,553	1	1,833	984	6,953	34,039	0	3,349	3,361	10,346
Viet Nam	39,306	68	515	4,435	7,770	3,311	0	1,316	7,730	11,949
EUROPE	2,553,858	(20)	3,507	499,633	851,600	762,970	300,479	283,538	1,341,347	961,926
Albania	1,048	(63)	335	16	476	15	0	242	135	0
Austria	27,761	14	3,428	3,624	12,087	6,537	0	4,201	21,501	2,239
Belarus	25,142	(40)	2,429	1,011	9,013	13,775	0	2,302	25,705	3,371
Belgium	57,125	21	5,641	8,482	24,167	11,261	12,355	6,177	71,574	22,701
Bosnia and Herzegovina	1,750	134	497	348	896	211	0	150	1,140	16
Bulgaria	20,616	(33)	2,457	7,492	4,713	3,699	4,633	2,290	12,916	1,972
Croatia	7,650	178	1,706	258	4,027	2,246	0	948	5,621	1,884
Czech Rep	40,576	(18)	3,939	21,111	7,920	7,667	3,256	4,269	19,105	9,347
Denmark	21,107	4	4,016	6,579	9,570	3,861	0	2,739	18,975	15,267
Estonia	5,556	(1,713)	3,839	3,168	1,262	618	0	435	2,691	925
Finland	33,075	10	6,433	6,854	10,288	2,906	5,445	6,051	23,294	4,362
France	247,534	19	4,233	14,631	88,035	31,330	103,065	30,545	150,764	27,667
Germany	347,272	(5)	4,232	86,264	139,311	71,928	44,406	39,709	233,959	23,769
Greece	25,556	36	2,418	8,450	15,322	171	0	3,153	23,462	3,984
Hungary	25,311	(18)	2,492	4,354	6,975	9,696	3,640	2,480	15,730	2,609
Iceland	2,330	22	8,516	56	793	0	0	408	882	0
Ireland	12,491	31	3,415	2,955	6,541	2,771	0	1,435	11,068	1,353
Italy	163,315	14	2,846	11,302	93,533	47,472	0	21,346	157,047	21,677
Latvia	4,460	505	1,812	160	1,744	1,065	0	373	2,883	242
Lithuania	8,806	(40)	2,377	139	3,229	2,001	3,196	579	9,118	4,178
Macedonia, FYR	2,841	184	1,430	1,496	1,064	0	0	454	1,147	5
Moldova, Rep	4,436	(54)	1,014	151	899	3,127	0	451	4,440	2
Netherlands	74,910	15	4,798	9,228	27,590	35,323	628	7,698	119,534	96,357
Norway	24,226	12	5,511	1,029	8,345	3,921	0	8,900	6,888	194,412
Poland	105,155	(20)	2,718	71,277	19,323	9,415	0	8,148	29,990	21,824
Portugal	20,400	58	2,068	3,529	14,218	87	0	2,742	21,261	2,441
Romania	44,135	(36)	1,957	9,169	12,727	15,934	1,407	3,305	17,325	3,113
Russian Federation	591,982	(52)	4,009	97,216	127,422	309,719	28,774	50,428	20,163	353,530
Slovakia	17,216	(23)	3,204	4,694	3,284	5,634	2,814	1,964	15,001	2,457
Slovenia	6,380	19	3,197	1,269	2,705	715	1,308	846	3,850	292
Spain	107,328	43	2,709	18,154	57,113	11,305	14,411	13,184	89,804	8,765
Sweden	51,934	6	5,864	2,498	16,135	719	18,224	10,687	31,362	10,992
Switzerland	26,218	12	3,616	110	13,394	2,294	6,640	4,197	17,903	2,875
Ukraine	150,059	(24)	2,939	43,532	18,431	66,314	20,701	10,677	73,701	4,818
United Kingdom	227,977	9	3,894	40,010	82,489	76,378	25,577	26,596	76,963	112,399
Yugoslavia	15,842	319	1,491	8,706	3,650	2,230	0	2,872	X	0
MIDDLE EAST & N. AFRICA	525,927	58	1,388	30,732	301,815	174,602	0	41,487	129,890	1,075,597
Afghanistan	X	X	X	X	X	X	X	X	X	X
Algeria	26,497	23	901	272	8,780	16,919	0	1,426	763	99,278
Egypt	39,581	41	611	644	25,598	11,070	0	4,170	2,677	11,838
Iran, Islamic Rep	108,289	83	1,676	927	67,626	38,316	0	6,094	12,079	128,389
Iraq	27,091	33	1,279	0	23,314	3,701	0	2,542	0	34,997
Israel	17,591	70	3,002	5,478	11,669	13	0	2,544	18,942	2,146
Jordan	4,795	52	783	0	4,602	189	0	456	4,602	0
Kuwait	16,165	29	9,332	0	11,706	4,455	0	2,005	5	99,742
Lebanon	5,244	76	1,669	132	4,852	0	0	688	5,038	0
Libyan Arab Jamahiriya	15,090	33	2,896	0	10,424	4,541	0	1,563	29	63,795
Morocco	9,275	61	345	2,019	6,631	23	0	994	8,714	320
Oman	6,775	265	2,939	0	2,482	4,294	0	507	340	45,030
Saudi Arabia	98,449	60	5,054	0	60,861	37,584	0	7,049	4	386,792
Syrian Arab Rep	14,642	46	979	1	11,706	2,066	0	995	737	18,890
Tunisia	6,805	43	739	69	3,470	2,087	0	562	4,236	3,685
Turkey	71,273	54	1,124	21,176	30,863	8,339	0	6,853	44,674	1,333
United Arab Emirates	30,874	62	13,381	0	7,149	23,708	0	1,769	12,575	124,913
Yemen	3,355	30	206	0	3,278	0	0	129	1	13,785

	Energy Consumption							Final Consumption of Electricity (1000 toe) (b) 1997	Trade in Energy	
	From all Sources			From Non-Renewable Energy Sources (a)					Imports (1000 metric toe) (b) 1997	Exports (1000 metric toe) (b) 1997
	(1000 metric toe) (b) 1997	Percent Change Since 1987	Per Capita (kg oil equivalent) 1997	Solid Fuels (1000 metric toe) (b) 1997	Liquid Fuels (1000 metric toe) (b) 1997	Gaseous Fuels (1000 metric toe) (b) 1997	Nuclear Fuels (1000 metric toe) (b) 1997			
SUB-SAHARAN AFRICA	X	X	X	X	X	X	X	X	X	X
Angola	6,848	37	585	0	1,118	465	0	64	65	33,997
Benin	2,182	36	388	0	331	0	0	22	340	70
Botswana	X	X	X	X	X	X	X	X	X	X
Burkina Faso	X	X	X	X	X	X	X	X	X	X
Burundi	X	X	X	X	X	X	X	X	X	X
Cameroon	5,756	24	413	0	863	0	0	216	15	5,454
Central African Rep	X	X	X	X	X	X	X	X	X	X
Chad	X	X	X	X	X	X	X	X	X	X
Congo	1,242	(12)	459	0	331	3	0	46	24	12,312
Congo, Dem Rep	14,539	36	303	241	1,317	0	0	484	1,271	1,063
Côte d'Ivoire	5,597	39	398	0	1,489	0	0	222	2,073	1,218
Equatorial Guinea	X	X	X	X	X	X	X	X	X	X
Eritrea	X	X	X	X	X	X	X	X	X	X
Ethiopia	17,131	25	294	0	815	0	0	110	962	79
Gabon	1,635	10	1,438	0	643	68	0	75	218	18,116
Gambia	X	X	X	X	X	X	X	X	X	X
Ghana	6,896	44	370	2	1,447	0	0	427	1,316	236
Guinea	X	X	X	X	X	X	X	X	X	X
Guinea-Bissau	X	X	X	X	X	X	X	X	X	X
Kenya	14,138	19	497	57	2,418	0	0	312	2,863	170
Lesotho	X	X	X	X	X	X	X	X	X	X
Liberia	X	X	X	X	X	X	X	X	X	X
Madagascar	X	X	X	X	X	X	X	X	X	X
Malawi	X	X	X	X	X	X	X	X	X	X
Mali	X	X	X	X	X	X	X	X	X	X
Mauritania	X	X	X	X	X	X	X	X	X	X
Mozambique	7,664	1	416	12	641	0	0	67	777	43
Namibia	X	X	X	X	X	X	X	X	X	X
Niger	X	X	X	X	X	X	X	X	X	X
Nigeria	88,652	36	853	86	14,867	4,429	0	850	43	102,342
Rwanda	X	X	X	X	X	X	X	X	X	X
Senegal	2,770	27	316	0	1,116	20	0	81	1,192	65
Sierra Leone	X	X	X	X	X	X	X	X	X	X
Somalia	X	X	X	X	X	X	X	X	X	X
South Africa	107,220	15	2,766	80,492	10,459	1,543	3,296	13,292	12,525	43,715
Sudan	11,480	21	414	0	1,858	0	0	116	1,601	0
Tanzania, United Rep	14,258	21	454	3	725	0	0	146	781	29
Togo	X	X	X	X	X	X	X	X	X	X
Uganda	X	X	X	X	X	X	X	X	X	X
Zambia	5,987	13	697	102	564	0	0	457	606	175
Zimbabwe	9,926	17	885	2,636	1,504	0	0	906	1,893	88
NORTH AMERICA	2,400,174	16	7,947	540,674	935,332	578,709	195,194	313,067	673,759	285,889
Canada	237,983	17	7,864	27,376	80,826	70,738	21,536	40,854	59,098	180,771
United States	2,162,191	16	7,956	513,299	854,506	507,971	173,658	272,213	614,662	105,118
C. AMERICA & CARIBBEAN	198,317	26	1,202	6,801	117,549	35,678	2,725	15,838	58,677	115,951
Belize	X	X	X	X	X	X	X	X	X	X
Costa Rica	2,663	48	710	0	1,517	0	0	403	1,631	133
Cuba	14,273	(5)	1,290	47	8,656	18	0	993	6,977	0
Dominican Rep	5,453	25	673	85	3,945	0	0	432	4,021	0
El Salvador	4,095	49	693	1	1,438	0	0	274	1,450	65
Guatemala	5,633	47	535	0	2,279	0	0	365	2,328	1,015
Haiti	1,779	16	227	0	480	0	0	27	480	0
Honduras	3,182	44	532	1	1,178	0	0	212	1,150	0
Jamaica	3,963	104	1,575	41	3,326	0	0	477	3,352	67
Mexico	141,520	24	1,501	6,592	88,214	28,832	2,725	11,831	15,103	95,567
Nicaragua	2,573	26	550	0	1,030	0	0	115	991	16
Panama	2,328	44	855	35	1,490	0	0	269	3,092	564
Trinidad and Tobago	8,196	77	6,419	0	1,336	6,828	0	370	2,140	7,003
SOUTH AMERICA	379,732	35	1,148	20,679	179,005	72,463	2,883	42,975	91,009	236,800
Argentina	61,710	36	1,730	856	24,425	28,857	2,057	5,012	4,766	22,951
Bolivia	4,254	67	547	0	2,095	1,085	0	261	244	1,918
Brazil	172,030	31	1,051	12,315	85,673	5,288	826	24,540	59,393	3,282
Chile	23,012	121	1,573	4,240	11,288	2,164	0	2,529	15,030	150
Colombia	30,481	29	761	2,704	14,332	5,339	0	3,047	1,427	38,000
Ecuador	8,513	44	713	0	6,794	0	0	627	924	14,890
Guyana	X	X	X	X	X	X	X	X	X	X
Paraguay	4,191	49	824	0	1,162	0	0	332	1,118	3,948
Peru	15,127	20	621	305	8,572	768	0	1,272	5,721	3,453
Suriname	X	X	X	X	X	X	X	X	X	X
Uruguay	2,883	30	883	1	1,809	0	0	480	2,189	93
Venezuela	57,530	32	2,526	258	22,855	28,962	0	4,873	196	148,115
OCEANIA	118,305	31	4,038	43,703	41,892	21,613	0	15,950	30,122	122,289
Australia	101,626	30	5,543	42,346	35,607	16,908	0	13,239	24,483	119,382
Fiji	X	X	X	X	X	X	X	X	X	X
New Zealand	16,679	39	4,434	1,357	6,285	4,705	0	2,711	5,638	2,906
Papua New Guinea	X	X	X	X	X	X	X	X	X	X
Solomon Islands	X	X	X	X	X	X	X	X	X	X
DEVELOPED	5,827,461	(4)	4,505	1,280,399	2,152,070	1,476,854	582,534	717,830	2,520,891	1,479,201
DEVELOPING	3,631,617	49	803	973,694	1,244,028	434,089	41,628	267,035	908,491	1,931,077

Notes: Negative values are shown in parentheses. Zero is either 0 or less than one-half the unit of measure. (0) indicates a value less than 0 and greater than negative one-half.
a. See ERC.4 for data on renewable energy. b. Tons of oil equivalent. See the technical notes for more information on toe.

Source: International Energy Agency

Energy Consumption by Economic Sector (% of total consumption)

	Energy Consumption by Economic Sector (% of total consumption)															
	Industry				Transportation								Commercial and			
	All Industries		Iron and Steel		Total		Air		Road		Agriculture		Public Services		Residential	
	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997
WORLD	38.2	32.2	2.7	4.1	24.7	24.8	3.1	3.1	18.8	19.6	3.8	2.8	8.3	7.4	19.1	27.1
ASIA (EXCL. MIDDLE EAST)	48.6	37.4	7.7	5.6	16.4	15.9	1.5	1.8	11.9	12.3	4.0	3.0	5.1	5.4	21.2	33.6
Armenia	X	27.1	X	0.0	X	7.2	X	2.7	X	2.8	X	4.7	X	3.7	X	34.9
Azerbaijan	X	39.0	X	0.0	X	15.3	X	6.7	X	7.4	X	11.5	X	1.1	X	24.6
Bangladesh	X	36.2	X	0.0	X	5.1	X	0.5	X	3.3	X	2.1	X	0.5	X	5.1
Bhutan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cambodia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
China	X	42.5	X	8.1	X	8.8	X	0.5	X	5.7	X	3.4	X	4.4	X	36.8
Georgia	X	20.6	X	3.5	X	22.3	X	2.2	X	19.1	X	3.4	X	12.6	X	17.6
India	X	29.7	X	3.4	X	11.7	X	0.7	X	10.1	X	2.4	X	0.7	X	54.2
Indonesia	11.7	22.8	0.8	2.5	12.9	18.9	1.1	1.7	11.6	15.4	1.1	1.8	0.5	1.1	67.9	54.1
Japan	42.8	39.8	8.1	6.9	24.2	27.0	2.3	3.1	19.4	22.1	3.5	3.2	11.0	12.2	14.1	14.1
Kazakhstan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Korea, Dem People's Rep	81.2	83.9	0.0	0.0	8.2	6.1	0.0	0.0	8.2	6.1	X	X	0.0	0.0	0.9	0.7
Korea, Rep	37.9	44.9	6.4	7.1	18.8	23.2	1.5	2.3	13.8	17.3	2.4	2.8	8.5	16.6	28.3	8.5
Kyrgyzstan	82.0	35.3	0.0	0.0	0.5	8.2	0.0	2.8	0.0	5.0	8.4	8.7	0.0	0.0	2.9	5.6
Lao People's Dem Rep	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Malaysia	38.3	40.4	0.0	0.5	35.9	33.4	4.0	5.5	31.9	27.9	X	1.9	3.7	4.3	17.8	13.4
Mongolia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Myanmar	X	11.0	X	0.0	X	7.2	X	0.5	X	6.6	X	0.1	X	0.4	X	81.1
Nepal	2.1	4.2	0.0	0.0	1.9	2.8	0.4	0.4	1.5	2.4	0.1	0.2	0.9	1.2	94.9	91.4
Pakistan	X	26.1	X	0.2	X	16.6	X	1.3	X	14.8	X	1.9	X	2.3	X	52.4
Philippines	19.6	39.3	1.7	2.3	12.2	19.7	2.6	4.5	8.3	13.0	5.1	8.6	2.5	3.7	48.9	23.6
Singapore	34.8	36.7	0.6	0.8	46.5	47.0	24.3	28.2	22.2	18.6	0.0	0.0	6.1	6.6	4.7	4.6
Sri Lanka	13.5	20.0	0.0	0.0	16.2	20.6	2.4	4.5	13.3	15.4	0.0	0.2	1.8	3.3	67.7	55.3
Tajikistan	57.2	19.6	0.0	0.0	0.6	37.8	0.0	0.2	0.0	37.3	19.4	13.0	0.0	0.0	6.1	5.8
Thailand	26.8	33.1	1.0	1.2	33.4	38.9	5.9	5.2	25.6	33.3	6.7	2.8	2.9	4.6	29.0	19.1
Turkmenistan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Uzbekistan	X	18.5	X	0.0	X	11.5	X	0.9	X	6.0	X	7.5	X	8.9	X	42.5
Viet Nam	X	19.0	X	0.0	X	13.6	X	0.8	X	12.3	X	1.2	X	0.0	X	64.9
EUROPE	37.9	32.9	4.7	4.9	20.9	23.0	2.1	2.8	16.5	17.3	3.1	4.0	8.0	7.3	23.1	27.1
Albania	31.8	13.5	1.3	0.0	14.0	41.2	0.0	0.0	14.0	41.2	X	0.6	0.0	2.8	17.3	31.1
Austria	27.1	23.9	6.3	5.6	24.2	29.0	1.2	2.4	21.5	24.8	2.8	3.9	3.7	3.4	32.3	29.8
Belarus	X	36.9	X	0.8	X	10.8	X	0.0	X	7.8	X	5.8	X	1.3	X	35.4
Belgium	36.2	36.9	8.7	7.6	21.6	23.3	1.9	3.4	18.6	18.4	1.4	2.6	9.4	9.4	28.2	24.7
Bosnia and Herzegovina	X	7.8	X	3.1	X	48.3	X	5.1	X	30.5	X	0.0	X	0.0	X	20.8
Bulgaria	51.6	58.9	3.9	9.1	9.4	10.4	2.0	1.9	6.7	7.5	1.3	3.3	2.3	1.6	13.2	21.6
Croatia	X	33.4	X	1.4	X	24.3	X	1.5	X	20.8	X	3.5	X	7.8	X	27.8
Czech Rep	53.1	48.5	8.7	10.4	6.5	14.5	0.6	0.6	5.0	12.6	4.2	2.2	5.8	7.5	25.0	22.3
Denmark	18.4	19.3	1.0	0.7	31.3	31.0	5.2	5.4	21.4	23.6	4.7	6.5	9.9	11.7	31.5	28.7
Estonia	X	30.1	X	0.0	X	18.7	X	0.8	X	16.1	X	2.6	X	8.1	X	38.6
Finland	42.3	45.0	4.1	4.6	18.0	18.2	1.4	2.0	15.7	15.3	4.0	3.0	3.6	6.0	24.5	21.9
France	30.6	28.1	3.8	3.3	27.2	29.7	2.3	3.3	23.5	25.1	2.2	2.0	13.1	13.1	24.1	23.2
Germany	33.7	29.6	5.0	4.1	20.7	26.6	1.9	2.7	17.7	22.8	1.2	1.1	12.1	10.4	28.2	28.3
Greece	28.6	24.6	1.3	0.6	36.9	38.3	8.4	6.9	25.8	27.9	7.1	5.9	3.5	6.0	19.5	22.9
Hungary	39.3	28.3	7.8	4.0	13.5	16.4	0.7	1.1	10.9	14.2	5.9	4.1	16.7	17.4	17.4	30.1
Iceland	25.5	27.4	6.0	5.5	16.3	15.9	4.0	5.6	10.9	9.6	15.4	17.8	3.2	4.1	36.4	29.3
Ireland	34.9	26.4	0.8	0.5	23.9	31.2	4.4	4.8	18.9	25.1	2.7	2.7	8.4	14.0	28.1	23.6
Italy	34.0	32.7	5.2	4.2	29.2	32.4	1.9	2.5	25.8	28.7	2.4	2.6	2.5	3.7	28.1	25.4
Latvia	X	26.3	X	3.9	X	21.4	X	0.9	X	16.1	X	3.0	X	10.3	X	38.8
Lithuania	X	28.5	X	0.1	X	24.5	X	0.6	X	21.8	X	3.5	X	11.0	X	29.2
Macedonia, FYR	X	31.0	X	10.6	X	30.6	X	1.8	X	26.7	X	4.4	X	4.1	X	27.4
Moldova, Rep	X	20.3	X	0.0	X	15.7	X	0.7	X	11.5	X	9.2	X	20.6	X	28.4
Netherlands	38.7	32.9	2.0	3.2	18.4	23.8	2.9	5.4	14.2	16.9	5.8	7.1	2.8	4.8	21.2	18.3
Norway	41.9	37.4	7.1	6.0	21.7	24.3	3.0	3.4	14.0	16.3	1.5	3.8	10.6	11.0	20.1	19.6
Poland	43.9	36.9	9.4	6.4	11.0	14.7	0.4	0.7	8.3	13.0	3.7	7.2	8.7	7.4	22.6	31.5
Portugal	45.1	38.3	1.7	1.2	29.7	33.9	5.0	3.9	23.4	29.1	4.0	3.4	5.4	6.5	12.6	12.5
Romania	55.2	44.0	9.8	10.3	4.2	14.4	0.0	0.5	3.8	11.1	2.2	3.1	0.7	0.0	20.4	32.4
Russian Federation	X	34.9	X	7.7	X	13.5	X	1.9	X	4.7	X	8.1	X	2.0	X	32.8
Slovakia	58.9	48.2	2.0	11.1	7.4	10.1	0.0	0.3	6.7	9.1	5.3	3.2	10.0	14.0	8.8	19.0
Slovenia	X	28.4	X	4.0	X	33.7	X	0.4	X	32.7	X	0.0	X	14.9	X	23.0
Spain	38.5	32.8	5.9	4.0	34.5	38.1	4.4	5.0	26.0	29.9	5.3	2.9	6.2	6.7	11.6	14.1
Sweden	37.4	38.2	3.5	3.1	21.5	22.0	2.1	2.5	17.7	18.4	2.0	1.5	13.0	13.5	23.6	22.5
Switzerland	19.7	18.6	0.0	0.0	29.3	33.3	5.4	7.2	22.7	25.0	1.0	1.3	16.8	16.5	28.9	27.9
Ukraine	X	42.4	X	4.2	X	7.6	X	0.8	X	3.9	X	4.2	X	10.8	X	30.5
United Kingdom	28.0	25.6	3.4	2.9	28.4	32.2	4.3	5.7	22.6	25.0	0.9	0.8	9.4	9.1	27.5	26.2
Yugoslavia	X	33.8	X	0.3	X	12.2	X	1.1	X	11.0	X	0.2	X	0.3	X	16.2
MIDDLE EAST & N. AFRICA	31.7	30.4	1.1	1.0	31.2	25.7	3.7	3.1	27.0	22.1	2.7	2.5	2.7	3.5	17.5	21.2
Afghanistan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Algeria	21.2	20.6	4.3	2.3	39.1	18.7	3.3	2.2	34.9	12.2	0.3	0.0	1.5	0.0	23.0	29.2
Egypt	49.6	47.8	0.7	0.5	19.8	20.6	2.9	3.6	16.9	16.9	0.5	0.6	0.0	0.0	23.2	22.9
Iran, Islamic Rep	37.7	31.4	0.1	0.1	24.6	23.2	1.2	0.8	23.5	22.4	7.3	5.5	7.0	7.6	12.9	28.0
Iraq	28.2	28.6	0.0	0.0	47.1	44.4	4.8	2.2	42.3	42.3	0.0	0.0	0.0	0.0	16.1	11.2
Israel	29.9	26.5	0.8	0.7	36.8	32.2	8.4	7.4	28.0	24.1	1.0	1.1	4.7	4.6	14.8	16.2
Jordan	22.8	19.3	0.1	0.0	51.6	41.3	8.5	10.1	43.2	31.2	1.6	2.9	1.4	2.2	15.1	18.1
Kuwait	53.5	27.0</														

	Energy Consumption by Economic Sector (% of total consumption)															
	Industry				Transportation								Commercial and			
	All Industries		Iron and Steel		Total		Air		Road		Agriculture		Public Services		Residential	
	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997	1987	1997
SUB-SAHARAN AFRICA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Angola	X	11.6	X	0.0	X	12.3	X	6.1	X	6.2	X	X	X	0.0	X	75.6
Benin	X	17.1	X	0.0	X	12.6	X	2.4	X	10.1	X	X	X	0.0	X	70.3
Botswana	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Burkina Faso	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Burundi	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cameroon	X	17.0	X	0.0	X	11.6	X	1.0	X	10.6	X	X	X	0.5	X	69.7
Central African Rep	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Chad	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Congo	X	14.2	X	0.0	X	18.4	X	6.3	X	12.1	X	X	X	0.0	X	65.7
Congo, Dem Rep	X	21.8	X	0.1	X	5.4	X	1.2	X	4.2	X	X	X	0.0	X	70.9
Côte d'Ivoire	X	7.0	X	0.0	X	16.0	X	3.1	X	12.5	X	1.2	X	12.1	X	62.0
Equatorial Guinea	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Eritrea	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ethiopia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Gabon	X	23.2	X	0.0	X	19.6	X	6.7	X	11.0	X	X	X	0.9	X	51.5
Gambia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ghana	16.0	14.1	0.0	0.0	11.0	13.2	1.4	1.2	9.0	11.4	0.7	1.0	0.5	0.7	69.8	69.9
Guinea	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Guinea-Bissau	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Kenya	X	11.4	X	0.0	X	12.6	X	4.5	X	7.7	X	6.5	X	0.7	X	67.7
Lesotho	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Liberia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Madagascar	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Malawi	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Mali	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Mauritania	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Mozambique	X	7.8	X	0.0	X	1.5	X	0.4	X	1.1	X	0.6	X	3.4	X	85.0
Namibia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Niger	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Nigeria	X	10.9	X	0.1	X	6.7	X	0.7	X	5.9	X	X	X	0.3	X	79.7
Rwanda	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Senegal	X	17.0	X	0.0	X	24.0	X	10.0	X	12.6	X	2.3	X	0.6	X	55.3
Sierra Leone	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Somalia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
South Africa	48.4	36.6	17.6	7.8	21.0	23.5	1.3	2.5	17.9	19.2	2.6	3.4	4.1	5.2	19.3	21.3
Sudan	X	7.4	X	0.0	X	17.8	X	1.0	X	16.9	X	0.1	X	2.0	X	70.9
Tanzania, United Rep	X	11.7	X	0.0	X	1.7	X	0.3	X	1.4	X	3.2	X	0.3	X	79.1
Togo	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Uganda	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Zambia	X	23.6	X	0.1	X	5.1	X	0.9	X	4.2	X	0.7	X	2.0	X	66.6
Zimbabwe	X	12.2	X	2.0	X	10.0	X	1.5	X	8.3	X	9.2	X	3.6	X	61.8
NORTH AMERICA	30.1	26.3	1.4	1.9	35.1	38.1	5.0	5.2	27.9	30.3	1.3	1.2	11.6	12.6	16.0	17.3
Canada	37.9	36.3	3.2	2.5	26.9	27.8	2.7	2.7	20.8	20.2	1.8	2.3	12.7	13.5	16.9	16.6
United States	29.2	25.0	1.1	1.8	36.0	39.5	5.2	5.6	28.7	31.7	1.2	1.1	11.4	12.5	15.9	17.3
C. AMERICA & CARIBBEAN	41.1	39.4	4.2	4.8	30.0	31.8	2.0	2.5	26.3	28.3	2.9	2.4	2.8	3.4	20.6	21.3
Belize	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Costa Rica	24.4	24.0	0.0	0.0	29.0	49.1	1.7	5.3	10.7	42.5	X	3.8	0.4	7.6	45.3	14.4
Cuba	49.7	70.9	2.0	0.4	27.7	10.5	2.1	2.9	21.8	7.5	6.2	3.1	2.5	2.1	10.0	7.5
Dominican Rep	28.8	20.5	0.0	0.0	36.3	29.9	3.6	1.7	24.4	14.0	0.6	1.0	0.0	0.0	34.4	46.3
El Salvador	22.0	20.5	0.0	0.0	19.0	24.0	1.1	1.6	17.9	22.4	0.1	X	2.3	3.0	56.2	51.6
Guatemala	10.6	13.9	0.0	0.0	14.8	21.2	1.3	1.0	13.6	20.1	0.9	0.7	2.1	4.0	70.4	58.8
Haiti	14.7	11.7	0.0	0.0	10.7	15.9	1.7	1.5	4.2	6.8	X	X	1.3	4.4	73.3	67.3
Honduras	23.8	27.3	0.0	0.0	15.1	17.4	1.3	0.8	13.8	16.5	0.1	0.2	4.3	4.9	56.7	50.3
Jamaica	43.3	26.1	0.0	0.0	33.6	41.7	10.5	12.1	23.1	21.0	3.1	11.9	0.2	6.4	13.5	13.2
Mexico	43.0	38.6	5.4	6.4	32.0	36.4	1.9	2.5	29.0	33.3	3.0	2.7	3.1	3.6	16.1	17.6
Nicaragua	19.1	11.4	0.0	0.0	21.0	23.2	2.4	1.6	18.0	20.1	2.6	1.0	2.3	6.1	52.8	56.7
Panama	26.9	20.5	0.0	0.0	29.3	35.3	0.1	0.2	29.2	34.7	X	X	1.7	2.4	41.6	39.3
Trinidad and Tobago	X	85.6	X	7.4	X	10.9	X	1.3	X	9.6	X	X	X	1.1	X	2.1
SOUTH AMERICA	37.8	37.3	5.7	5.2	29.5	32.7	2.3	2.4	26.1	29.0	4.9	4.8	3.2	5.0	20.9	16.8
Argentina	31.6	29.2	0.4	0.5	32.1	33.8	2.3	3.1	29.6	30.4	5.8	6.7	2.2	6.6	23.8	19.8
Bolivia	12.9	28.7	0.0	0.0	38.0	34.9	4.6	5.0	32.8	28.6	0.7	1.6	0.0	1.6	47.9	32.7
Brazil	42.4	41.4	8.3	7.1	27.3	32.3	2.2	2.0	23.8	28.7	5.9	5.2	3.7	4.8	17.5	13.5
Chile	36.8	41.8	3.5	2.1	29.2	30.0	2.7	3.2	24.5	24.3	X	1.3	1.8	0.8	30.8	25.4
Colombia	28.3	29.6	1.4	1.6	29.6	33.0	2.5	2.7	26.8	29.4	5.9	6.7	3.6	4.2	26.6	18.1
Ecuador	21.6	18.5	0.0	0.0	39.6	42.4	3.3	3.3	26.5	30.6	5.6	5.4	2.4	6.6	24.9	24.8
Guyana	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Paraguay	30.0	38.0	0.0	0.0	19.0	25.5	1.3	0.1	17.2	24.9	X	X	0.9	1.7	49.6	34.5
Peru	20.8	22.5	0.5	4.4	25.8	27.2	2.8	3.8	21.6	23.0	7.5	6.2	2.2	3.0	42.4	40.0
Suriname	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Uruguay	28.0	21.0	0.0	0.0	23.9	33.3	0.8	0.3	21.8	33.0	6.6	8.1	5.7	7.5	32.1	26.8
Venezuela	46.1	44.2	10.3	9.8	35.4	34.7	2.0	2.3	33.1	32.4	0.1	1.7	3.1	7.6	9.4	7.8
OCEANIA	35.5	35.5	4.5	3.9	39.1	39.0	4.6	6.3	30.9	29.2	2.6	2.3	6.0	6.7	13.2	12.4
Australia	35.1	34.3	4.1	3.6	39.8	39.5	4.3	6.2	32.4	31.2	2.5	2.3	5.6	6.7	13.3	12.8
Fiji	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
New Zealand	37.6	41.7	6.9	5.9	35.0	36.4	6.2	6.9	22.0	18.4	3.1	2.5	8.3	6.7	12.4	10.7
Papua New Guinea	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Solomon Islands	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DEVELOPED	34.8	30.7	3.6	3.8	27.9	29.8	3.5	3.9	22.2	23.3	2.3	2.8	9.7	9.8	18.6	21.4
DEVELOPING	44.4	34.9	6.1	4.5	21.2	17.8	1.9	1.8	17.0	14.5	3.8	2.9	3.2	3.9	22.2	34.4

Notes: Zero is either 0 or less than one-half the unit of measure.

Source: International Energy Agency

	Renewable Energy Production				Renewable Energy Consumption						
	All Renewable Sources		All Renewable Sources		Fuels and Waste		Hydroelectric		Geothermal (1000 toe) (a) 1997	Solar (1000 toe) (a) 1997	Wind (1000 toe) (a) 1997
	(1000 toe) (a) 1997	Percent Change Since 1987	(1000 toe) (a) 1997	% of Total Consumption from All Sources 1997	(1000 toe) (a) 1997	Percent Change Since 1987	(1000 toe) (a) 1997	Percent Change Since 1987			
WORLD	1,323,051	19	1,321,093	14	1,061,775	16	220,656	26	36,659	1,015	989
ASIA (EXCL. MIDDLE EAST)	623,784	18	625,537	21	569,937	15	43,653	46	11,926	16	5
Armenia	120	(4)	120	7	1	X	119	(5)	0	0	0
Azerbaijan	132	92	135	1	4	X	131	90	0	0	0
Bangladesh	16,093	14	16,093	66	16,031	14	62	39	0	0	0
Bhutan	X	X	X	X	X	X	X	X	X	X	X
Cambodia	X	X	X	X	X	X	X	X	X	X	X
China	225,117	12	225,117	20	208,262	8	16,855	96	0	0	0
Georgia	555	(28)	555	24	35	X	520	(32)	0	0	0
India	199,237	15	199,237	43	192,801	14	6,431	58	0	0	5
Indonesia	47,327	19	47,226	34	44,493	15	515	16	2,217	0	0
Japan	18,669	38	18,669	4	7,461	27	7,723	20	3,485	0	0
Kazakhstan	633	28	633	2	74	X	559	13	0	0	0
Korea, Dem People's Rep	1,019	10	2,898	12	1,019	10	1,878	(25)	0	0	0
Korea, Rep	1,917	317	1,892	1	1,634	X	242	(47)	0	16	0
Kyrgyzstan	969	135	969	35	4	X	965	134	0	0	0
Lao People's Dem Rep	0	X	0	X	X	X	X	X	X	X	X
Malaysia	2,690	14	2,673	6	2,390	22	283	(33)	0	0	0
Mongolia	0	X	0	X	X	X	X	X	X	X	X
Myanmar	10,412	18	10,412	80	10,270	18	142	62	0	0	0
Nepal	6,559	25	6,559	92	6,464	24	95	102	0	0	0
Pakistan	24,192	31	24,192	43	22,398	30	1,794	37	0	0	0
Philippines	16,149	17	16,149	42	9,403	(0)	522	16	6,224	0	0
Singapore	X	X	X	0	0	X	0	X	0	0	0
Sri Lanka	4,345	9	4,345	61	4,049	7	296	58	0	0	0
Tajikistan	1,189	(5)	1,189	35	0	X	1,189	(5)	0	0	0
Thailand	21,268	69	21,275	27	20,656	69	619	77	0	0	0
Turkmenistan	X	X	X	X	X	X	X	X	X	X	X
Uzbekistan	497	(15)	497	1	0	X	497	(15)	0	0	0
Viet Nam	23,790	34	23,790	61	22,398	27	1,392	1,069	0	0	0
EUROPE	139,258	56	139,247	5	76,996	154	57,645	1	3,691	236	630
Albania	523	(21)	523	50	60	(84)	464	61	0	0	0
Austria	5,479	7	5,578	20	2,483	13	3,095	(0)	0	0	0
Belarus	687	X	687	3	685	X	2	17	0	0	0
Belgium	578	147	578	1	549	178	26	(29)	1	1	1
Bosnia and Herzegovina	277	X	277	16	155	X	122	(53)	0	0	0
Bulgaria	396	(8)	385	2	240	14	146	(33)	0	0	0
Croatia	779	X	779	10	324	X	456	(9)	0	0	0
Czech Rep	686	X	686	2	540	X	146	(31)	0	0	0
Denmark	1,714	67	1,714	8	1,538	52	2	(31)	1	7	166
Estonia	625	X	592	11	592	X	0	X	0	0	0
Finland	6,923	39	6,923	21	5,869	48	1,053	(11)	0	0	1
France	16,022	X	16,098	7	10,564	X	5,351	(10)	116	16	2
Germany	5,569	(4)	5,569	2	3,816	(5)	1,493	(15)	0	3	258
Greece	1,415	92	1,415	6	952	90	334	40	4	123	3
Hungary	461	(5)	461	2	443	(5)	19	28	0	0	0
Iceland	1,481	20	1,481	64	1	X	448	32	1,032	0	0
Ireland	225	X	225	2	162	X	58	(0)	0	0	4
Italy	7,290	19	7,610	5	1,562	54	3,578	5	2,452	8	10
Latvia	1,557	X	1,335	30	1,081	X	254	(20)	0	0	0
Lithuania	543	X	544	6	519	X	25	(18)	0	0	0
Macedonia, FYR	277	X	280	10	190	X	77	X	13	0	0
Moldova, Rep	100	X	94	2	61	X	33	55	0	0	0
Netherlands	1,038	X	1,038	1	979	X	8	X	0	11	41
Norway	10,597	8	10,600	44	1,160	26	9,439	6	0	0	1
Poland	5,333	86	5,328	5	5,160	89	169	18	0	0	0
Portugal	2,317	26	2,317	11	1,126	7	1,127	43	45	16	3
Romania	4,893	X	4,880	11	3,374	X	1,506	56	0	0	0
Russian Federation	30,806	X	30,546	5	17,023	X	13,499	(3)	24	0	0
Slovakia	438	44	439	3	83	(40)	356	114	0	0	0
Slovenia	500	64	528	8	263	X	266	(13)	0	0	0
Spain	6,609	133	6,609	6	3,539	X	2,976	26	3	28	64
Sweden	14,271	22	14,271	27	8,313	51	5,936	(4)	0	4	18
Switzerland	4,353	15	4,361	17	1,414	72	2,928	(2)	0	19	0
Ukraine	1,093	32	1,093	1	246	X	848	3	0	0	0
United Kingdom	2,097	X	2,097	1	1,685	X	355	(0)	0	0	57
Yugoslavia	1,256	20	1,256	8	210	X	1,046	(0)	0	0	0
MIDDLE EAST & N. AFRICA	18,597	19	18,613	4	11,562	(0)	6,275	72	179	597	0
Afghanistan	0	X	0	X	X	X	X	X	X	X	X
Algeria	525	16	525	2	519	27	6	(85)	0	0	0
Egypt	2,286	30	2,268	6	1,238	22	1,031	38	0	0	0
Iran, Islamic Rep	1,420	4	1,420	1	786	21	634	(12)	0	0	0
Iraq	76	(69)	76	0	26	21	50	(78)	0	0	0
Israel	519	66	522	3	6	126	6	X	0	511	0
Jordan	4	48	5	0	3	42	2	16	0	0	0
Kuwait	X	X	4	0	4	(37)	0	X	0	0	0
Lebanon	207	31	208	4	125	16	77	48	0	6	0
Libyan Arab Jamahiriya	125	0	125	1	125	0	0	X	0	0	0
Morocco	592	56	592	6	415	35	177	150	0	0	0
Oman	X	X	X	0	0	X	0	X	0	0	0
Saudi Arabia	X	X	4	0	4	(54)	0	X	0	0	0
Syrian Arab Rep	868	366	868	6	5	56	863	373	0	0	0
Tunisia	1,176	19	1,176	17	1,172	20	4	(61)	0	0	0
Turkey	10,705	12	10,705	15	7,022	(11)	3,424	114	179	80	0
United Arab Emirates	X	X	17	0	17	X	0	X	0	0	0
Yemen	77	6	77	2	77	6	0	X	0	0	0

	Renewable Energy Production				Renewable Energy Consumption							
	All Renewable Sources		All Renewable Sources		Fuels and Waste		Hydroelectric		Geothermal (1000 toe) (a)	Solar (1000 toe) (a)	Wind (1000 toe) (a)	
	(1000 toe) (a) 1997	Percent Change Since 1987	(1000 toe) (a) 1997	% of Total Consumption from All Sources 1997	(1000 toe) (a) 1997	Percent Change Since 1987	(1000 toe) (a) 1997	Percent Change Since 1987				
SUB-SAHARAN AFRICA	X	X	X	X	X	X	X	X	X	X	X	X
Angola	5,264	28	5,264	77	5,178	28	87	44	0	0	0	0
Benin	1,830	26	1,830	84	1,830	26	0	X	0	0	0	0
Botswana	X	X	X	X	X	X	X	X	X	X	X	X
Burkina Faso	X	X	X	X	X	X	X	X	X	X	X	X
Burundi	X	X	X	X	X	X	X	X	X	X	X	X
Cameroon	4,893	31	4,893	85	4,627	31	266	26	0	0	0	0
Central African Rep	X	X	X	X	X	X	X	X	X	X	X	X
Chad	X	X	X	X	X	X	X	X	X	X	X	X
Congo	899	28	899	72	862	27	37	55	0	0	0	0
Congo, Dem Rep	12,993	37	12,993	89	12,488	38	506	12	0	0	0	0
Côte d'Ivoire	4,105	40	4,105	73	3,931	38	174	131	0	0	0	0
Equatorial Guinea	X	X	X	X	X	X	X	X	X	X	X	X
Eritrea	X	X	X	X	X	X	X	X	X	X	X	X
Ethiopia	16,316	27	16,316	95	16,126	27	101	62	89	0	0	0
Gabon	924	24	924	57	860	26	64	6	0	0	0	0
Gambia	X	X	X	X	X	X	X	X	X	X	X	X
Ghana	5,482	39	5,482	79	4,953	40	529	31	0	0	0	0
Guinea	X	X	X	X	X	X	X	X	X	X	X	X
Guinea-Bissau	X	X	X	X	X	X	X	X	X	X	X	X
Kenya	11,651	20	11,651	82	11,013	19	300	83	338	0	0	0
Lesotho	X	X	X	X	X	X	X	X	X	X	X	X
Liberia	X	X	X	X	X	X	X	X	X	X	X	X
Madagascar	X	X	X	X	X	X	X	X	X	X	X	X
Malawi	X	X	X	X	X	X	X	X	X	X	X	X
Mali	X	X	X	X	X	X	X	X	X	X	X	X
Mauritania	X	X	X	X	X	X	X	X	X	X	X	X
Mozambique	6,993	(1)	6,993	91	6,925	(1)	68	339	0	0	0	0
Namibia	X	X	X	X	X	X	X	X	X	X	X	X
Niger	X	X	X	X	X	X	X	X	X	X	X	X
Nigeria	69,270	32	69,270	78	68,789	32	481	70	0	0	0	0
Rwanda	X	X	X	X	X	X	X	X	X	X	X	X
Senegal	1,634	31	1,634	59	1,634	31	0	X	0	0	0	0
Sierra Leone	X	X	X	X	X	X	X	X	X	X	X	X
Somalia	X	X	X	X	X	X	X	X	X	X	X	X
South Africa	12,221	32	11,999	11	11,819	31	180	29	0	0	0	0
Sudan	9,622	15	9,622	84	9,532	15	90	16	0	0	0	0
Tanzania, United Rep	13,526	23	13,526	95	13,402	23	125	26	0	0	0	0
Togo	0	X	0	X	X	X	X	X	X	X	X	X
Uganda	0	X	0	X	X	X	X	X	X	X	X	X
Zambia	5,450	20	5,450	91	4,765	26	685	(8)	0	0	0	0
Zimbabwe	5,441	21	5,441	55	5,288	20	153	60	0	0	0	0
NORTH AMERICA	150,068	8	150,027	6	78,240	(5)	58,590	23	12,820	77	297	297
Canada	40,581	12	40,581	17	10,377	16	30,196	11	0	0	5	5
United States	109,487	6	109,446	5	67,863	(7)	28,395	39	12,820	77	292	292
C. AMERICA & CARIBBEAN	35,432	21	35,432	18	25,641	16	3,815	46	5,968	0	7	7
Belize	0	X	0	X	X	X	X	X	X	X	X	X
Costa Rica	1,157	14	1,157	43	269	(64)	413	60	468	0	7	7
Cuba	5,552	39	5,552	39	5,544	39	8	112	0	0	0	0
Dominican Rep	1,423	(0)	1,423	26	1,308	2	115	(21)	0	0	0	0
El Salvador	2,649	34	2,649	65	1,926	43	103	30	620	0	0	0
Guatemala	3,353	18	3,353	60	3,030	13	323	113	0	0	0	0
Haiti	1,298	4	1,298	73	1,281	5	17	(38)	0	0	0	0
Honduras	2,003	28	2,003	63	1,724	22	279	85	0	0	0	0
Jamaica	595	133	595	15	585	138	10	(3)	0	0	0	0
Mexico	15,033	15	15,033	11	8,059	4	2,273	44	4,701	0	0	0
Nicaragua	1,529	23	1,529	59	1,314	32	35	(17)	180	0	0	0
Panama	808	37	808	35	570	38	238	36	0	0	0	0
Trinidad and Tobago	32	(37)	32	0	32	(37)	0	X	0	0	0	0
SOUTH AMERICA	106,225	16	104,699	28	62,052	(3)	42,600	57	0	0	48	48
Argentina	5,069	34	5,069	8	2,647	39	2,422	29	0	0	0	0
Bolivia	1,074	44	1,074	25	876	34	198	117	0	0	0	0
Brazil	65,972	7	64,448	37	40,448	(11)	24,000	50	0	0	0	0
Chile	5,320	53	5,320	23	3,691	53	1,629	54	0	0	0	0
Colombia	8,088	11	8,088	27	5,267	0	2,821	41	0	0	0	0
Ecuador	1,720	21	1,720	20	1,137	10	583	48	0	0	0	0
Guyana	X	X	X	X	X	X	X	X	X	X	X	X
Paraguay	6,960	90	6,957	166	2,619	27	4,339	172	0	0	0	0
Peru	5,482	15	5,482	36	4,297	12	1,136	21	0	0	48	48
Suriname	X	X	X	X	X	X	X	X	X	X	X	X
Uruguay	1,086	(14)	1,086	38	529	(17)	558	(11)	0	0	0	0
Venezuela	5,456	71	5,456	9	541	(0)	4,915	85	0	0	0	0
OCEANIA	11,098	32	11,098	9	5,924	41	3,437	12	1,646	89	1	1
Australia	6,765	39	6,765	7	5,237	45	1,439	23	0	89	1	1
Fiji	X	X	X	X	X	X	X	X	X	X	X	X
New Zealand	4,332	23	4,332	26	687	14	1,998	5	1,646	0	1	1
Papua New Guinea	X	X	X	X	X	X	X	X	X	X	X	X
Solomon Islands	X	X	X	X	X	X	X	X	X	X	X	X
DEVELOPED	335,929	27	335,661	6	180,564	37	131,561	12	21,643	913	929	929
DEVELOPING	924,052	19	924,291	25	821,322	15	87,792	58	15,016	102	60	60

Notes: Negative values are shown in parentheses. Zero is either 0 or less than one-half the unit of measure. (0) indicates a value less than 0 and greater than negative one-half.

a. Tons of oil equivalent. See the technical notes for more information on toe.

Source: International Energy Agency

	Passenger Cars (per 1000 people)		Annual Motor Gasoline Consumption (liters per person)		Annual Meat Consumption (kg per person)		Annual Paper Consumption (kg per person)		Annual Coffee Consumption (kg per person)		
	1990	1996	1987	1997	1988	1998	1988	1998	1997		
WORLD	77	a	84	a	186	182	33	37	44.6	49.2	X
ASIA (EXCL. MIDDLE EAST)	16	23	30	50	15	25	18.1	26.0			X
Armenia	1	0	261	8	0	22	X	X			X
Azerbaijan	36	36	X	86	0	16	X	X			X
Bangladesh	0	0	1	2	3	3	0.9	1.3			X
Bhutan	X	X	X	X	X	X	X	X			X
Cambodia	0	5	X	X	14	15	0.0	0.4			X
China (b)	1	3	20	35	23	47	14.6	29.8			0.0
Georgia	89	79	X	123	X	X	X	X			X
India	2	4	5	7	4	4	2.7	3.7			0.1
Indonesia	7	12	27	49	7	9	5.0	17.1			0.6
Japan	283	373	308	422	38	42	204.0	238.6			2.9
Kazakhstan	50	63	X	155	0	41	X	X			X
Korea, Dem People's Rep	X	X	X	X	15	7	4.2	3.6			X
Korea, Rep	48	151	39	245	21	38	83.0	113.7			1.4
Kyrgyzstan	44	32	X	33	0	38	X	X			X
Lao People's Dem Rep	6	3	X	X	10	14	X	X			X
Malaysia	101	139	176	305	33	52	30.7	69.1			0.4
Mongolia	5	12	X	X	94	90	X	X			X
Myanmar	X	1	6	8	9	9	0.7	0.8			X
Nepal	X	X	1	2	10	10	0.3	0.6			X
Pakistan	4	5	11	10	11	14	3.3	3.2			X
Philippines	7	10	28	47	16	27	8.7	12.4			0.7
Singapore	101	120	205	268	75	76	129.2	167.7			X
Sri Lanka	6	6	11	14	3	5	7.7	6.9			0.1
Tajikistan	0	0	X	224	X	X	0.0	0.2	c		X
Thailand	14	28	48	120	21	26	13.7	22.6			0.4
Turkmenistan	X	X	X	140	X	X	X	X			X
Uzbekistan	X	X	X	81	0	29	X	X			X
Viet Nam	X	X	9	28	15	21	0.9	3.3			0.2
EUROPE	224	289	232	303	58	72	80.0	111.5			X
Albania	2	20	47	76	16	25	8.7	17.7			X
Austria	387	458	438	345	104	106	133.0	243.3			8.1
Belarus	59	101	X	159	0	63	X	18.3			X
Belgium	385	424	383	334	X	X	X	X			X
Bosnia and Herzegovina	101	43	X	11	X	X	X	X			X
Bulgaria	146	204	183	95	75	63	63.9	27.2			2.0
Croatia	X	X	X	202	0	22	X	107.4			4.8
Czech Rep	228	325	137	238	0	83	X	78.5			2.8
Denmark	320	331	398	502	103	127	247.9	245.2			9.0
Estonia	154	277	X	281	0	59	X	34.5			X
Finland	386	379	469	488	63	69	302.1	419.9			11.0
France	405	437	443	334	98	100	141.0	180.9			5.7
Germany	386	500	482	491	100	87	176.6	205.2			7.1
Greece	171	223	265	383	70	82	50.4	97.1			4.3
Hungary	188	239	191	178	110	79	68.9	107.7			3.5
Iceland	470	463	638	658	70	70	119.1	107.6	c		X
Ireland	227	272	314	428	101	111	95.4	104.3			1.6
Italy	476	533	288	434	82	88	112.4	167.1			5.1
Latvia	106	153	X	203	0	37	X	36.3			X
Lithuania	132	212	X	237	0	48	X	23.1			1.7
Macedonia, FYR	X	X	X	144	0	30	X	29.6			X
Moldova, Rep	48	39	268	74	0	19	0.0	3.3	c		X
Netherlands	368	370	310	353	81	106	187.8	246.8			9.2
Norway	380	379	559	505	51	60	146.6	173.8			9.2
Poland	138	209	104	170	75	72	40.5	53.8			3.4
Portugal	162	269	141	263	53	85	70.1	106.1			3.9
Romania	56	107	106	92	59	56	32.3	14.8			1.7
Russian Federation	X	107	X	201	0	45	X	14.9			0.4
Slovakia	163	198	116	132	0	77	X	116.2			2.6
Slovenia	289	365	339	610	0	88	X	141.5			4.8
Spain	309	376	235	302	89	111	100.2	156.2			4.6
Sweden	426	413	649	621	59	71	242.2	212.8			8.5
Switzerland	449	462	668	703	82	71	X	X			6.0
Ukraine	63	93	X	84	0	30	X	7.9			X
United Kingdom	341	360	519	507	72	76	159.2	201.0			2.5
Yugoslavia	133	150	X	84	0	100	X	19.6			1.7
MIDDLE EAST & N. AFRICA	X	43	127	149	21	22	9.9	15.5			X
Afghanistan	X	1	X	X	X	X	X	X			X
Algeria	X	25	113	79	17	18	13.0	7.9			3.1
Egypt	21	23	54	43	17	21	7.9	12.7			0.2
Iran, Islamic Rep	25	30	123	171	19	24	5.0	7.3			X
Iraq	1	36	204	185	27	6	6.6	1.0			X
Israel	174	208	381	433	60	65	85.0	107.2			4.3
Jordan	X	50	96	116	30	21	11.5	18.4			X
Kuwait	X	317	803	1,309	61	82	X	X			X
Lebanon	300	299	349	556	45	40	37.1	46.8			3.5
Libyan Arab Jamahiriya	X	159	322	454	35	33	5.9	2.8			X
Morocco	28	38	21	19	17	19	7.7	10.2			0.8
Oman	83	97	343	392	37	36	7.0	5.5	c		X
Saudi Arabia	98	90	587	660	44	44	X	X			0.7
Syrian Arab Rep	10	10	112	101	19	20	6.8	9.2			0.9
Tunisia	23	30	38	49	17	20	15.3	20.9			1.1
Turkey	34	55	63	96	20	19	14.5	31.9			0.2
United Arab Emirates	97	82	652	677	69	100	X	X			X
Yemen	14	15	61	86	16	10	0.1	2.3	c		X

	Passenger Cars (per 1000 people)		Annual Motor Gasoline Consumption (liters per person)		Annual Meat Consumption (kg per person)		Annual Paper Consumption (kg per person)		Annual Coffee Consumption (kg per person)
	1990	1996	1987	1997	1988	1998	1988	1998	1997
SUB-SAHARAN AFRICA	11	14	31	31	12	13	5.3	4.8	X
Angola	15	18	12	11	16	11	2.5	0.2	0.2
Benin	2	7	13	30	13	15	X	X	<0.1
Botswana	10	15	X	X	23	32	X	X	X
Burkina Faso	2	4	X	X	11	11	X	X	X
Burundi	X	X	X	X	X	X	X	X	<0.1
Cameroon	6	7	38	22	16	15	4.5	2.7	0.4
Central African Rep	1	0	X	X	21	24	X	X	0.2
Chad	1	2	X	X	11	10	X	X	X
Congo	12	14	40	26	16	17	X	X	0.1
Congo, Dem Rep	13	17	7	7	7	5	0.3	0.1	0.3
Côte d'Ivoire	16	21	24	14	15	11	X	X	0.2
Equatorial Guinea	3	4	X	X	X	X	X	X	0.0
Eritrea	1	2	X	X	X	X	X	X	X
Ethiopia	1	1	4	3	0	10	0.2	0.4	1.6
Gabon	19	22	45	48	53	49	X	X	0.1
Gambia	7	8	X	X	9	7	0.4	0.1 c	X
Ghana	X	5	21	26	10	8	X	X	0.0
Guinea	2	2	X	X	X	X	X	X	0.4
Guinea-Bissau	4	6	X	X	15	15	X	X	X
Kenya	10	10	26	18	16	13	5.6	6.2	0.1
Lesotho	3	6	X	X	20	16	X	X	X
Liberia	7	3	X	X	9	8	X	X	0.1
Madagascar	4	5	X	X	21	18	0.6	0.9	0.7
Malawi	2	3	X	X	5	5	X	X	0.0
Mali	2	3	X	X	18	19	X	X	X
Mauritania	6	8	X	X	30	23	X	X	X
Mozambique	3	0	3	3	6	5	1.1	0.1	X
Namibia	40	47	X	X	29	36	X	X	X
Niger	5	4	X	X	13	12	X	X	X
Nigeria	X	7	51	42	9	12	2.4	1.9	0.0
Rwanda	1	2	X	X	X	X	X	X	0.0
Senegal	8	10	17	12	15	18	X	X	X
Sierra Leone	7	4	X	X	5	5	X	X	0.1
Somalia	1	0	X	X	22	18	X	X	X
South Africa	97	100	219	267	41	34	51.5	53.5	0.4
Sudan	8	10	8	11	17	21	1.8	0.9	X
Tanzania, United Rep	1	1	5	4	11	10	1.9	1.3	0.0
Togo	15	19	X	X	12	11	X	X	0.0
Uganda	1	2	X	X	9	11	0.5	0.5	0.2
Zambia	8	17	21	17	13	12	1.5	1.6	0.0
Zimbabwe	X	29	24	52	12	11	9.0	8.7	0.0
NORTH AMERICA	563	484	1,618	1,637	113	120	300.3	295.0	X
Canada	468	441	1,222	1,178	99	99	224.2	316.7	4.5
United States	573	489	1,660	1,688	114	122	308.5	292.6	4.0
C. AMERICA & CARIBBEAN	X	69	182	204	32	39	31.1	34.7	X
Belize	36	42	X	X	52	52	X	X	X
Costa Rica	55	81	80	159	37	42	21.1	72.3	4.1
Cuba	X	20	137	50	37	24	30.0	7.3	1.1
Dominican Rep	21	28	125	97	28	37	13.9	32.4	2.4
El Salvador	17	29	42	69	14	17	10.4	18.6	1.9
Guatemala	X	10	43	70	15	20	7.4	18.9	1.7
Haiti	X	4	10	14	10	10	X	X	2.5
Honduras	X	X	37	48	14	17	27.3	34.2	1.6
Jamaica	X	41	113	216	40	55	23.3	16.8	0.5
Mexico	82	93	260	303	39	51	42.7	46.2	0.6
Nicaragua	10	16	45	33	12	15	X	X	1.6
Panama	60	76	117	167	39	48	26.8	27.2	1.8
Trinidad and Tobago	X	94	448	322	29	28	25.0	40.8 c	0.7
SOUTH AMERICA	X	32	122	148	48	61	26.5	34.9	X
Argentina	134	127	202	161	93	98	30.9	48.0	1.2
Bolivia	25	29	82	78	40	47	1.6	12.9	0.3
Brazil	X	X	47	97	46	69	27.3	39.8	4.2
Chile	52	71	117	204	34	62	28.0	53.2	0.6
Colombia	X	19	168	191	31	34	20.2	24.6	2.4
Ecuador	31	40	137	146	24	32	21.5	34.7	1.5
Guyana	X	X	X	X	10	25	X	X	X
Paraguay	X	14	38	44	64	67	7.0	11.5	0.2
Peru	X	59	86	60	28	32	17.0	9.8	0.5
Suriname	90	122	X	X	X	X	X	X	X
Uruguay	122	150	81	131	103	110	20.3	38.9	X
Venezuela	X	68	567	539	47	44	51.5	27.4	2.2
OCEANIA	344	364	710	692	98	93	126.9	133.7	X
Australia	450	485	970	950	114	110	161.1	176.1	2.6
Fiji	X	37	X	X	35	45	X	X	0.3
New Zealand	445	451	695	755	150	137	179.3	176.5	2.6
Papua New Guinea	X	7	X	X	26	25	X	X	0.0
Solomon Islands	X	X	X	X	X	X	X	X	X
DEVELOPED	296	326	548	626	66	77	137.9	160.2	X
DEVELOPING	9	15	39	55	18	26	11.0	17.5	X

Notes: Zero is either 0 or less than one-half the unit of measure. a. World total calculated by the World Resources Institute. b. Data for China do not include Hong Kong or Taiwan. c. Production assumed to be 0; net imports therefore equal consumption. See the technical notes for more detail.

Sources: Food and Agriculture Organization of the United Nations, International Coffee Organization, International Energy Agency, World Bank

	Population (thousands)			Average Annual Population Change (percent)		Percentage of Population in Specific Age Groups			Total Fertility Rate (average number of children per woman)	
	1950	2000 (a)	2025 (a)	1975-80	1995-00 (a)	2000 (a)			1975-80	1995-00 (a)
						<15	15-65	>65		
WORLD	2,521,495	6,055,049	7,823,703	1.7	1.3	30	63	7	3.9	2.7
ASIA (EXCL. MIDDLE EAST)	1,333,740	3,420,234	4,307,665	X	X	48	47	5	X	X
Armenia	1,354	3,520	3,946	1.8	(0.3)	25	67	9	2.5	1.7
Azerbaijan	2,896	7,734	9,403	1.6	0.4	29	64	7	3.6	2.0
Bangladesh	41,783	129,155	178,751	2.8	1.7	35	62	3	6.7	3.1
Bhutan	734	2,124	3,904	2.3	2.8	43	53	4	5.9	5.5
Cambodia	4,346	11,168	16,526	(1.8)	2.2	41	56	3	4.1	4.6
China	554,760	1,277,558	1,480,412	1.5	0.9	58	37	5	3.3	1.8
Georgia	3,527	4,968	5,178	0.7	(1.1)	22	65	13	2.4	1.9
India	357,561	1,013,662	1,330,449	2.1	1.6	33	62	5	4.8	3.1
Indonesia	79,538	212,107	273,442	2.1	1.4	31	65	5	4.7	2.6
Japan	83,625	126,714	121,150	0.9	0.2	55	34	12	1.8	1.4
Kazakhstan	6,703	16,223	17,698	1.1	(0.3)	28	65	7	3.1	2.3
Korea, Dem People's Rep	9,488	24,039	29,388	1.6	1.6	60	36	4	3.3	2.1
Korea, Rep	20,357	46,844	52,533	1.6	0.8	57	37	5	2.9	1.7
Kyrgyzstan	1,740	4,699	6,096	1.9	0.6	35	59	6	4.1	3.2
Lao People's Dem Rep	1,755	5,433	9,653	1.2	2.6	44	53	3	6.7	5.8
Malaysia	6,110	22,244	30,968	2.3	2.0	34	62	4	4.2	3.2
Mongolia	761	2,662	3,709	2.8	1.6	61	36	3	6.6	2.6
Myanmar	17,832	45,611	58,120	2.1	1.2	28	67	5	5.3	2.4
Nepal	7,862	23,930	38,010	2.5	2.4	41	55	4	6.2	4.5
Pakistan	39,513	156,483	263,000	2.6	2.8	42	55	3	7.0	5.0
Philippines	20,988	75,967	108,251	2.3	2.1	37	60	4	5.0	3.6
Singapore	1,022	3,567	4,168	1.3	1.4	22	71	7	1.9	1.7
Sri Lanka	7,678	18,827	23,547	1.7	1.0	26	67	7	3.8	2.1
Tajikistan	1,532	6,188	8,857	2.8	1.5	40	55	5	5.9	4.2
Thailand	20,010	61,399	72,717	2.4	0.9	25	69	6	4.3	1.7
Turkmenistan	1,211	4,459	6,287	2.5	1.8	38	58	4	5.3	3.6
Uzbekistan	6,314	24,318	33,355	2.6	1.6	37	58	5	5.1	3.4
Viet Nam	29,954	79,832	108,037	2.2	1.6	33	61	5	5.6	2.6
EUROPE	547,053	728,416	701,734	0.5 b	0.0 b	17	68	15	2.0 b	1.4 b
Albania	1,230	3,113	3,820	1.9	(0.4)	29	64	6	4.2	2.5
Austria	6,935	8,211	8,186	(0.1)	0.5	17	68	15	1.6	1.4
Belarus	7,745	10,236	9,496	0.6	(0.3)	19	68	14	2.1	1.4
Belgium	8,639	10,161	9,918	0.1	0.1	17	66	17	1.7	1.6
Bosnia and Herzegovina	2,661	3,972	4,324	0.9	3.0	19	71	10	2.2	1.4
Bulgaria	7,251	8,225	7,023	0.3	(0.7)	16	68	16	2.2	1.2
Croatia	3,850	4,473	4,193	0.5	(0.1)	17	68	15	2.0	1.6
Czech Rep	8,925	10,244	9,512	0.6	(0.2)	17	70	14	2.3	1.2
Denmark	4,271	5,293	5,238	0.2	0.3	18	67	15	1.7	1.7
Estonia	1,101	1,396	1,131	0.6	(1.2)	17	69	14	2.1	1.3
Finland	4,009	5,176	5,254	0.3	0.3	18	67	15	1.6	1.7
France	41,829	59,080	61,662	0.4	0.4	19	65	16	1.9	1.7
Germany	68,376	82,220	80,238	(0.1)	0.1	16	68	16	1.5	1.3
Greece	7,566	10,645	9,863	1.3	0.3	15	67	18	2.3	1.3
Hungary	9,338	10,036	8,900	0.3	(0.4)	17	68	15	2.1	1.4
Iceland	143	281	328	0.9	0.9	23	65	12	2.3	2.1
Ireland	2,969	3,730	4,404	1.4	0.7	21	67	11	3.5	1.9
Italy	47,104	57,298	51,270	0.4	(0.0)	14	68	18	1.9	1.2
Latvia	1,949	2,357	1,936	0.4	(1.5)	18	68	14	2.0	1.3
Lithuania	2,567	3,670	3,399	0.7	(0.3)	19	67	13	2.1	1.4
Macedonia, FYR	1,230	2,024	2,258	1.4	0.6	23	67	10	2.7	2.1
Moldova, Rep	2,341	4,380	4,547	0.9	0.0	23	67	10	2.4	1.8
Netherlands	10,114	15,786	15,782	0.7	0.4	18	68	14	1.6	1.5
Norway	3,265	4,465	4,817	0.4	0.5	20	65	15	1.8	1.9
Poland	24,824	38,765	39,069	0.9	0.1	19	69	12	2.3	1.5
Portugal	8,405	9,875	9,348	1.4	0.0	16	68	16	2.4	1.4
Romania	16,311	22,327	19,945	0.9	(0.4)	18	69	13	2.6	1.2
Russian Federation	102,192	146,934	137,933	0.6	(0.2)	18	69	13	1.9	1.3
Slovakia	3,463	5,387	5,393	1.0	0.1	20	69	11	2.5	1.4
Slovenia	1,473	1,986	1,818	1.0	(0.0)	16	70	14	2.2	1.3
Spain	28,009	39,630	36,658	1.1	0.0	15	68	17	2.6	1.2
Sweden	7,014	8,910	9,097	0.3	0.2	18	64	17	1.6	1.6
Switzerland	4,694	7,386	7,587	(0.1)	0.7	17	68	15	1.5	1.5
Ukraine	36,906	50,456	45,688	0.4	(0.4)	18	68	14	2.0	1.4
United Kingdom	50,616	58,830	59,961	0.0	0.2	19	65	16	1.7	1.7
Yugoslavia	7,131	10,640	10,844	0.9	0.1	20	67	13	2.4	1.8
MIDDLE EAST & N. AFRICA	111,706	403,793	613,894	X	X	36	60	4	X	X
Afghanistan	8,958	22,720	44,934	0.9	2.9	44	53	3	7.2	6.9
Algeria	8,753	31,471	46,611	3.1	2.3	37	60	4	7.2	3.8
Egypt	21,834	68,470	95,615	2.4	1.9	35	61	4	5.3	3.4
Iran, Islamic Rep	16,913	67,702	94,463	3.3	1.7	36	59	4	6.5	2.8
Iraq	5,158	23,115	41,014	3.3	2.8	41	56	3	6.6	5.3
Israel	1,258	6,217	8,277	2.3	2.2	28	62	10	3.4	2.7
Jordan	1,237	6,669	12,063	2.3	3.0	42	55	3	7.4	4.9
Kuwait	152	1,972	2,974	6.2	3.1	34	64	2	5.9	2.9
Lebanon	1,443	3,282	4,400	(0.7)	1.7	33	61	6	4.3	2.7
Libyan Arab Jamahiriya	1,029	5,605	8,647	4.4	2.4	38	59	3	7.4	3.8
Morocco	8,953	28,351	38,670	2.3	1.8	33	63	4	5.9	3.1
Oman	456	2,542	5,352	5.0	3.3	44	53	3	7.2	5.9
Saudi Arabia	3,201	21,607	39,965	5.6	3.4	41	57	3	7.3	5.8
Syrian Arab Rep	3,495	16,125	26,292	3.1	2.5	41	56	3	7.4	4.0
Tunisia	3,530	9,586	12,843	2.6	1.4	30	64	6	5.7	2.6
Turkey	20,809	66,591	87,869	2.1	1.7	28	66	6	4.5	2.5
United Arab Emirates	70	2,441	3,284	14.0	2.0	28	69	3	5.7	3.4
Yemen	4,316	18,112	38,985	3.2	3.7	48	49	2	7.6	7.6

	Population (thousands)			Average Annual Population Change (percent)		Percentage of Population in Specific Age Groups			Total Fertility Rate (average number of children per woman)	
	1950	2000 (a)	2025 (a)	1975-80	1995-00 (a)	2000 (a)			1975-80	1995-00 (a)
						<15	15-65	>65		
SUB-SAHARAN AFRICA	176,816	640,663	1,095,448	X	X	44	53	3	X	X
Angola	4,131	12,878	25,107	2.7	3.2	48	50	3	6.8	6.8
Benin	2,046	6,097	11,109	2.5	2.7	46	51	3	7.1	5.8
Botswana	389	1,622	2,242	3.5	1.9	42	55	2	6.4	4.4
Burkina Faso	3,654	11,937	23,321	2.5	2.7	47	50	3	7.8	6.6
Burundi	2,456	6,695	11,569	2.3	1.7	46	51	3	6.8	6.3
Cameroon	4,466	15,085	26,484	2.8	2.7	43	53	4	6.5	5.3
Central African Rep	1,314	3,615	5,704	2.3	1.9	43	54	4	5.9	4.9
Chad	2,658	7,651	13,908	2.1	2.6	46	51	3	6.6	6.1
Congo	808	2,943	5,689	2.9	2.8	46	50	3	6.3	6.1
Congo, Dem Rep	12,184	51,654	104,788	3.0	2.6	48	49	3	6.5	6.4
Côte d'Ivoire	2,776	14,786	23,345	3.9	1.8	43	54	3	7.4	5.1
Equatorial Guinea	226	453	795	(0.7)	2.5	43	53	4	5.7	5.6
Eritrea	1,140	3,850	6,681	2.6	3.8	44	53	3	6.4	5.7
Ethiopia	18,434	62,565	115,382	2.4	2.4	46	51	3	6.8	6.3
Gabon	469	1,226	1,981	3.1	2.6	40	54	6	4.4	5.4
Gambia	294	1,305	2,151	3.1	3.2	0	95	5	6.5	5.2
Ghana	4,900	20,212	36,876	1.9	2.7	43	54	3	6.5	5.2
Guinea	2,550	7,430	12,497	1.5	0.8	44	53	3	7.0	5.5
Guinea-Bissau	505	1,213	1,946	4.7	2.2	43	53	4	5.6	5.8
Kenya	6,265	30,080	41,756	3.8	2.0	43	54	3	8.1	4.5
Lesotho	734	2,153	3,506	2.5	2.2	40	56	4	5.7	4.8
Liberia	824	3,154	6,618	3.1	8.2	42	55	3	6.8	6.3
Madagascar	4,230	15,942	28,964	2.5	3.0	44	53	3	6.6	5.4
Malawi	2,881	10,925	19,958	3.3	2.4	47	50	3	7.6	6.8
Mali	3,520	11,234	21,295	2.1	2.4	46	50	4	7.1	6.6
Mauritania	825	2,670	4,766	2.5	2.7	43	53	3	6.5	5.5
Mozambique	6,198	19,680	30,612	2.8	2.5	45	52	3	6.5	6.3
Namibia	511	1,726	2,338	2.7	2.2	42	55	4	6.0	4.9
Niger	2,400	10,730	21,495	3.2	3.2	48	49	2	8.1	6.8
Nigeria	30,703	111,506	183,041	2.8	2.4	43	54	3	6.9	5.2
Rwanda	2,120	7,733	12,427	3.3	7.7	45	52	2	8.5	6.2
Senegal	2,500	9,481	16,743	2.8	2.6	45	53	2	7.0	5.6
Sierra Leone	1,944	4,854	8,085	2.0	3.0	44	53	3	6.5	6.1
Somalia	2,264	10,097	21,211	7.0	4.2	48	50	2	7.3	7.3
South Africa	13,683	40,377	46,015	2.2	1.5	35	61	4	4.5	3.3
Sudan	9,190	29,490	46,264	3.1	2.1	39	57	3	6.7	4.6
Tanzania, United Rep	7,886	33,517	57,918	3.1	2.3	45	52	3	6.8	5.5
Togo	1,329	4,629	8,482	2.7	2.8	46	51	3	6.6	6.1
Uganda	4,762	21,778	44,435	3.2	2.8	50	48	2	6.9	7.1
Zambia	2,440	9,169	15,616	3.4	2.2	47	51	2	7.2	5.6
Zimbabwe	2,730	11,669	15,092	3.0	1.4	41	56	3	6.6	3.8
NORTH AMERICA	171,550	309,504	363,469	0.9 b	0.8 b	72	23	4	1.8 b	1.9 b
Canada	13,737	31,147	37,896	1.2	1.0	19	68	13	1.8	1.6
United States	157,813	278,357	325,573	0.9	0.8	21	66	13	1.8	2.0
C. AMERICA & CARIBBEAN	53,958	173,292	235,662	X	X	34	61	5	X	X
Belize	69	241	370	1.7	2.4	40	56	4	6.2	3.7
Costa Rica	862	4,023	5,929	3.0	2.5	32	63	5	3.9	2.8
Cuba	5,850	11,201	11,798	0.9	0.4	21	69	10	2.1	1.6
Dominican Rep	2,353	8,495	11,164	2.4	1.6	33	62	4	4.7	2.8
El Salvador	1,951	6,276	9,062	2.1	2.0	36	59	5	5.6	3.2
Guatemala	2,969	11,385	19,816	2.5	2.6	44	53	4	6.4	4.9
Haiti	3,261	8,222	11,988	2.1	1.7	41	56	4	6.0	4.4
Honduras	1,380	6,485	10,656	3.4	2.7	42	55	3	6.6	4.3
Jamaica	1,403	2,583	3,245	1.2	0.9	31	62	7	4.0	2.5
Mexico	27,737	98,881	130,196	2.7	1.6	33	62	5	5.3	2.8
Nicaragua	1,134	5,074	8,696	3.1	2.7	43	54	3	6.4	4.4
Panama	860	2,856	3,779	2.5	1.6	31	63	6	4.1	2.6
Trinidad and Tobago	636	1,295	1,493	1.3	0.5	25	68	7	3.4	1.7
SOUTH AMERICA	112,992	345,779	460,864	2.3 b	1.5 b	30	64	6	4.3 b	2.6 b
Argentina	17,150	37,032	47,160	1.5	1.3	28	63	10	3.4	2.6
Bolivia	2,714	8,329	13,131	2.4	2.3	40	56	4	5.8	4.4
Brazil	53,975	170,115	217,930	2.4	1.3	29	66	5	4.3	2.3
Chile	6,082	15,211	19,548	1.5	1.4	28	64	7	3.0	2.4
Colombia	12,568	42,321	59,758	2.3	1.9	33	63	5	4.3	2.8
Ecuador	3,387	12,646	17,796	2.8	2.0	34	61	5	5.4	3.1
Guyana	423	861	1,045	0.7	0.7	30	66	4	3.9	2.3
Paraguay	1,488	5,496	9,355	3.2	2.6	40	57	3	5.2	4.2
Peru	7,632	25,662	35,518	2.7	1.7	33	62	5	5.4	3.0
Suriname	215	417	525	(0.5)	0.4	30	64	6	4.2	2.2
Uruguay	2,239	3,337	3,907	0.6	0.7	25	62	13	2.9	2.4
Venezuela	5,094	24,170	34,775	3.4	2.0	34	62	4	4.5	3.0
OCEANIA	12,605	30,424	39,686	1.1 b	1.3 b	25	65	10	2.8 b	2.4 b
Australia	8,219	18,886	23,098	0.9	1.0	21	67	12	2.1	1.8
Fiji	289	817	1,104	1.9	1.2	31	64	5	4.0	2.7
New Zealand	1,908	3,862	4,695	0.2	1.0	23	66	12	2.2	2.0
Papua New Guinea	1,613	4,807	7,460	2.5	2.2	39	58	3	5.9	4.6
Solomon Islands	90	444	817	3.5	3.1	43	54	3	7.1	4.9
DEVELOPED	852,572	1,306,083	1,359,258	0.6 b	0.3 b	31	57	12	1.9 b	1.6 b
DEVELOPING	1,667,848	4,746,022	6,459,163	2.1 b	1.6 b	45	50	5	4.7 b	3.0 b

Notes: Negative values are shown in parentheses. Zero is either 0 or less than one-half the unit of measure. (0) indicates a value less than 0 and greater than negative one-half. a. Data include projections based on 1990 base year population data. See the technical notes for more information. b. Regional totals were calculated by the data source.

Source: United Nations Population Division

	Infant	Under-5	Life Expectancy at Birth (years)				Births	Adults and	Percent of	Number of	
	Mortality	Mortality					Attended	Children	Adults	Children	
	Rate (a)	Rate					by Trained	Infected	Infected	Orphaned by	
	(per 1000	(per 1000					Personnel	with HIV/AIDS	with	AIDS Since	
live births)	live births)	Female	Male	1975-80	1995-00	1975-80	1995-00	(percent)	(number)	HIV/AIDS (c)	Beginning
1995-00	1997							1995-97 (b)	1997		of Epidemic
WORLD	57	87	61	68	58	63	60	30,600,000	0.97	8,200,000	
ASIA (EXCL. MIDDLE EAST)	X	X	X	X	X	X	X	6,220,900	X	202,170	
Armenia	26	30	75	74	69	67	96	<100	0.01	X	
Azerbaijan	36	45	72	74	64	66	99	<100	<0.005	X	
Bangladesh	79	109	46	58	47	58	8	21,000	0.03	810	
Bhutan	63	121	47	62	45	60	15	<100	<0.005	X	
Cambodia	103	167	33	55	30	51	31	130,000	2.40	7,300	
China	41	47	66	72	64	68	89	400,000	0.06	720	
Georgia	20	29	74	77	67	69	X	<100	<0.005	X	
India	72	108	52	63	53	62	34	4,100,000	0.82	120,000	
Indonesia	48	68	54	67	52	63	54	52,000	0.05	1,000	
Japan	4	6	78	83	73	77	100	6,800	0.01	<100	
Kazakhstan	35	44	70	72	60	63	100	2,500	0.03	X	
Korea, Dem People's Rep	22	30	69	75	62	69	100	X	X	X	
Korea, Rep	10	6	68	76	61	69	98	3,100	0.01	<100	
Kyrgyzstan	40	48	68	72	60	63	98	<100	<0.005	X	
Lao People's Dem Rep	93	122	45	55	42	52	X	1,100	0.04	150	
Malaysia	11	11	67	74	64	70	99	68,000	0.62	1,500	
Mongolia	51	150	58	67	55	64	100	<100	0.01	X	
Myanmar	79	114	53	62	50	59	56	440,000	1.79	14,000	
Nepal	83	104	45	57	47	58	9	26,000	0.24	750	
Pakistan	74	136	54	65	53	63	18	64,000	0.09	5,000	
Philippines	36	41	61	70	58	67	64	24,000	0.06	480	
Singapore	5	4	73	79	69	75	100	3,100	0.15	<100	
Sri Lanka	18	19	69	75	65	71	94	6,900	0.07	450	
Tajikistan	57	76	67	70	62	64	79	<100	<0.005	X	
Thailand	29	38	63	72	59	66	71	780,000	2.23	48,000	
Turkmenistan	55	78	65	69	58	62	96	<100	0.01	X	
Uzbekistan	44	60	68	71	62	64	98	<100	<0.005	X	
Viet Nam	38	43	58	70	54	65	85	88,000	0.22	1,900	
EUROPE	12	X	75	77	67	69	X	662,650	X	X	
Albania	30	40	71	76	67	70	99	<100	0.01	X	
Austria	6	5	76	80	69	74	100	7,500	0.18	X	
Belarus	23	18	76	74	66	62	100	9,000	0.17	X	
Belgium	7	7	76	81	69	74	100	7,500	0.14	X	
Bosnia and Herzegovina	15	16	72	76	67	71	97	750	0.04	X	
Bulgaria	17	19	74	75	69	68	100	300	0.01	X	
Croatia	10	9	74	77	67	69	X	300	0.01	X	
Czech Rep	6	7	74	77	67	70	X	2,000	0.04	X	
Denmark	7	6	77	78	71	73	100	3,100	0.12	X	
Estonia	19	14	74	75	65	63	X	<100	0.01	X	
Finland	6	4	77	81	68	73	100	500	0.02	X	
France	6	5	78	82	70	74	99	110,000	0.37	X	
Germany	5	5	76	80	69	74	99	35,000	0.08	X	
Greece	8	8	76	81	72	76	97	7,500	0.14	X	
Hungary	10	11	73	75	66	67	99	2,000	0.04	X	
Iceland	5	5	79	81	73	77	100	200	0.14	X	
Ireland	7	7	75	79	70	74	X	1,700	0.09	X	
Italy	7	6	77	81	70	75	X	90,000	0.31	X	
Latvia	18	20	74	74	64	62	X	<100	0.01	X	
Lithuania	21	15	75	76	66	64	X	<100	0.01	X	
Macedonia, FYR	23	23	71	75	68	71	95	<100	0.01	X	
Moldova, Rep	29	31	69	72	62	64	X	2,500	0.11	X	
Netherlands	6	6	79	81	72	75	100	14,000	0.17	X	
Norway	5	4	79	81	72	75	100	1,300	0.06	X	
Poland	15	11	75	77	67	68	99	12,000	0.06	X	
Portugal	9	8	74	79	67	72	90	35,000	0.69	X	
Romania	23	26	72	74	67	66	100	5,000	0.01	X	
Russian Federation	18	25	73	73	62	61	99	40,000	0.05	X	
Slovakia	11	11	74	77	67	69	X	<100	<0.005	X	
Slovenia	7	6	75	78	67	71	X	<100	0.01	X	
Spain	7	5	77	82	71	75	96	120,000	0.57	X	
Sweden	5	4	78	81	72	76	100	3,000	0.07	X	
Switzerland	6	5	79	82	72	75	99	12,000	0.32	X	
Ukraine	19	24	74	74	64	64	100	110,000	0.43	X	
United Kingdom	7	7	76	80	70	75	100	25,000	0.09	X	
Yugoslavia	18	21	73	75	68	70	93	5,000	0.10	X	
MIDDLE EAST & N. AFRICA	X	X	X	X	X	X	X	210,000	0.13	14,000	
Afghanistan	152	257	40	46	40	45	9	<100	<0.005	X	
Algeria	44	39	59	70	57	68	77	11,000	0.07	X	
Egypt	51	73	55	68	53	65	56	8,100	0.03	750	
Iran, Islamic Rep	35	35	59	70	58	69	86	1,000	<0.005	X	
Iraq	95	122	62	64	61	61	54	300	<0.005	X	
Israel	8	6	75	80	71	76	99	2,100	0.07	X	
Jordan	26	24	63	72	59	69	97	660	0.02	X	
Kuwait	12	13	72	78	68	74	99	1,100	0.12	X	
Lebanon	29	37	67	72	63	68	98	1,500	0.09	X	
Libyan Arab Jamahiriya	28	25	59	72	56	68	76	1,400	0.05	X	
Morocco	51	72	58	69	54	65	43	5,000	0.03	X	
Oman	25	18	56	73	54	69	93	1,200	0.11	X	
Saudi Arabia	23	28	60	73	58	70	90	1,100	0.01	X	
Syrian Arab Rep	33	33	62	71	58	67	67	800	0.01	X	
Tunisia	30	33	61	71	60	68	81	2,200	0.04	X	
Turkey	45	45	63	72	58	67	76	2,000	0.01	X	
United Arab Emirates	16	10	69	76	65	74	96	2,400	0.18	X	
Yemen	80	100	44	58	44	57	43	900	0.01	X	

Data Table HD.2 continued

	Infant	Under-5	Life Expectancy at Birth (years)				Births Attended by Trained Personnel (percent)	Adults and Children Infected with HIV/AIDS (number)	Percent of Adults Infected with HIV/AIDS (c)	Number of Children Orphaned by AIDS Since Beginning of Epidemic
	Mortality	Mortality								
	Rate (a)	Rate								
	(per 1000	(per 1000								
live births)	live births)					1995-97 (b)	1997			
1995-00	1997	1975-80	1995-00	1975-80	1995-00	1995-97 (b)	1997	1997		
SUB-SAHARAN AFRICA	X	170 g	X	X	X	X	37 g	21,014,160	7.41	7,771,690
Angola	125	292	42	48	38	45	15 f	110,000	2.12	19,000
Benin	88	167	49	55	45	52	60	54,000	2.06	11,000
Botswana	59	49	58	48	55	46	78 f	190,000	25.10	28,000
Burkina Faso	99	169	44	45	42	44	42	370,000	7.17	200,000
Burundi	119	176	48	44	44	41	19 f	260,000	8.30	160,000
Cameroon	74	99	50	56	47	53	64	320,000	4.89	74,000
Central African Rep	98	173	47	47	42	43	46	180,000	10.77	65,000
Chad	112	198	43	49	39	46	15	87,000	2.72	55,000
Congo	90	108	51	51	46	46	X	100,000	7.78	64,000
Congo, Dem Rep	90	207	50	52	46	49	X	950,000	4.35	410,000
Côte d'Ivoire	87	150	50	47	46	46	45	700,000	10.06	320,000
Equatorial Guinea	108	172	44	52	40	48	58 f	2,400	1.21	1,600
Eritrea	91	116	47	52	44	49	21	49,000	d	X
Ethiopia	116	175	44	44	40	42	14 f	2,600,000	9.31	840,000
Gabon	87	145	49	54	45	51	80 f	23,000	4.25	4,800
Gambia	122	87	41	49	37	45	44	13,000	2.24	8,400
Ghana	66	107	54	62	50	58	41	210,000	2.38	130,000
Guinea	124	201	39	47	38	46	31	74,000	2.09	18,000
Guinea-Bissau	130	220	39	46	36	43	27 f	12,000	2.25	990
Kenya	66	87	55	53	51	51	45	1,600,000	11.64	440,000
Lesotho	93	137	54	57	50	55	50	85,000	8.35	9,500
Liberia	116	235	51	49	48	46	58 f	44,000	3.65	21,000
Madagascar	83	158	51	59	48	56	47	8,600	0.12	1,300
Malawi	138	215	44	40	42	39	55	710,000	14.92	360,000
Mali	118	239	46	55	44	52	25	89,000	1.67	33,000
Mauritania	92	183	47	55	44	52	40	6,100	0.52	1,400
Mozambique	114	208	45	47	42	44	44	1,200,000	14.17	170,000
Namibia	65	75	53	53	50	52	68	150,000	19.94	7,800
Niger	115	320	42	50	39	47	15	65,000	1.45	20,000
Nigeria	81	187	47	52	43	49	31	2,300,000	4.12	410,000
Rwanda	124	170	47	42	43	39	26	370,000	12.75	120,000
Senegal	63	124	46	54	42	51	47	75,000	1.77	49,000
Sierra Leone	170	316	37	39	34	36	25 f	68,000	3.17	47,000
Somalia	122	211	44	49	40	45	2 f	11,000	d	X
South Africa	59	65	59	58	52	52	82	2,900,000	12.91	200,000
Sudan	71	115	48	56	45	54	69	140,000	d	X
Tanzania, United Rep	82	143	51	49	47	47	38	1,400,000	9.42	730,000
Togo	84	125	50	50	46	48	54 f	170,000	8.52	110,000
Uganda	107	137	49	40	45	39	38	930,000	9.51	1,700,000
Zambia	82	202	51	41	48	40	47	770,000	19.07	470,000
Zimbabwe	69	80	56	45	52	44	69	1,500,000	25.84	450,000
NORTH AMERICA	7 g	X	77 g	80 g	70 g	74 g	X	864,000	0.55 g	71,000
Canada	6	7	78	82	71	76	99 f	44,000	0.33	1,000
United States	7	8	77	80	69	73	99 f	820,000	0.76	70,000
C. AMERICA & CARIBBEAN	X	X	X	X	X	X	X	599,000	X	76,330
Belize	29	43	71	76	69	73	79	2,100	1.89	340
Costa Rica	12	14	73	79	69	74	98	10,000	0.55	940
Cuba	9	8	75	78	71	74	99	1,400	0.02	160
Dominican Rep	34	53	64	73	60	69	96	83,000	1.89	3,700
El Salvador	32	36	62	73	52	67	87	18,000	0.58	2,200
Guatemala	46	55	58	67	54	61	35	27,000	0.52	3,600
Haiti	68	132	52	56	49	51	21	190,000	5.17	40,000
Honduras	35	45	60	72	56	68	61	43,000	1.46	6,100
Jamaica	22	11	72	77	68	73	91	14,000	0.99	180
Mexico	31	35	69	75	62	70	91	180,000	0.35	16,000
Nicaragua	43	57	60	71	55	66	61	4,100	0.19	120
Panama	21	20	71	76	67	72	86	9,000	0.61	1,000
Trinidad and Tobago	15	17	71	76	66	72	98 f	6,800	0.94	760
SOUTH AMERICA	37 g	X	65 g	72 g	60 g	65 g	X	983,800	X	9,600
Argentina	22	24	72	77	65	70	97	120,000	0.69	2,400
Bolivia	66	96	52	63	48	60	47	2,600	0.07	150
Brazil	42	44	64	71	60	63	92	580,000	0.63	X
Chile	13	13	71	78	64	72	100	16,000	0.20	530
Colombia	30	30	66	74	62	67	85	72,000	0.36	1,500
Ecuador	46	39	63	72	60	67	64	18,000	0.28	1,100
Guyana	58	82	63	68	58	61	95	10,000	2.13	660
Paraguay	39	33	69	72	64	67	61	3,200	0.13	340
Peru	45	56	60	71	57	66	56	72,000	0.56	990
Suriname	29	30	68	73	63	68	91 f	2,800	1.17	390
Uruguay	18	21	73	78	66	70	96 f	5,200	0.33	340
Venezuela	21	25	71	76	65	70	69 f	82,000	0.69	1,200
OCEANIA	24 g	X	71 g	76 g	66 g	71 g	X	17,060	X	1,420
Australia	6	6	77	81	70	75	100	11,000	0.14	X
Fiji	20	24	69	75	66	71	96 f	260	0.06	<100
New Zealand	7	7	76	80	69	74	99 f	1,300	0.07	120
Papua New Guinea	61	112	50	59	50	57	53	4,500	0.19	1,300
Solomon Islands	23	28	67	74	63	70	87 f	X	X	X
DEVELOPED	9 g	7 g	76 g	79 g	68 g	71 g	99 g	4,450,350	X	271,120
DEVELOPING	63 g	96 g	58 g	65 g	56 g	62 g	55 g	25,954,780	X	7,861,840

Notes: a. Under 1 year of age. b. Data are for the most recent year within the range specified. c. Values are reproduced as reported by the data source, including values < 0.5%.

d. Data refer only to adults (ages 15-49). e. Data are from 1994. f. Data refer to years or periods other than those specified in the column heading, differ from the standard definition, or refer to only part of that country. g. Regional totals were calculated by the source.

Sources: United Nations Population Division, United Nations Children's Fund, World Health Organization, Joint United Nations Programme on HIV/AIDS

	Population with Access to Safe Water (percent)			Population with Access to Sanitation (percent)			Net Primary School Enrollment (percent)		Net Secondary School Enrollment (percent)		Gross Tertiary School Enrollment		Adult Literacy Rate (percent)			
	Rural	Urban	Total	Rural	Urban	Total	Female	Male	Female	Male	Total	Females	Female		Male	
	1990-97 (a)	1990-97 (a)	1990-97 (a)	1990-97 (a)	1990-97 (a)	1990-97 (a)	1996-97 (a)	1996-97 (a)	1996-97 (a)	1996-97 (a)	1996-97 (a)	1996-97 (a)	1985	1995	1985	1995
WORLD	62	90	72	25	78	44	X	X	X	X	X	X	X	X	X	X
ASIA (EXCL. MIDDLE EAST)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Armenia	X	X	X	X	X	X	X	X	X	X	12	56	96	97	99	99
Azerbaijan	X	X	X	X	X	X	X	X	X	X	18	50	X	X	X	X
Bangladesh	95	99	95	38	83	43	70	80	16	27	6	X	22	29	45	51
Bhutan	54	75	58	66	90	70	X	X	X	X	0	X	X	X	X	X
Cambodia	25	X	30	9	X	19	100	100	31	47	1	19	13	20	48	57
China	56	97	67	7	74	24	100	100	65	74	6	X	65	75	85	91
Georgia	X	X	X	X	X	X	89	89	75	76	41	51	X	X	X	X
India	79	85	81	14	70	29	71	83	48	71	7	36	34	44	61	67
Indonesia	66	91	75	49	77	59	99	100	53	59	11	X	70	81	86	91
Japan	X	X	X	X	X	X	100	100	100	100	43	X	X	X	X	X
Kazakhstan	84	99	93	98	100	99	X	X	X	X	32	X	X	X	X	X
Korea, Dem People's Rep	X	X	81	X	X	X	X	X	X	X	X	X	X	X	X	X
Korea, Rep	76	100	93	100	100	100	100	100	100	100	100	68	37	96	98	99
Kyrgyzstan	X	X	71	X	X	94	99	100	79	77	12	X	X	X	X	X
Lao People's Dem Rep	X	X	44	X	X	18	69	77	53	74	3	30	18	30	50	62
Malaysia	66	96	78	94	94	94	100	100	69	60	11	X	73	82	86	91
Mongolia	3	73	40	74	99	86	88	83	64	48	19	68	38	51	63	72
Myanmar	50	78	60	36	56	43	99	100	53	55	6	X	73	80	87	89
Nepal	68	93	71	14	28	16	63	93	40	68	5	X	13	22	46	57
Pakistan	73	89	79	39	93	56	X	X	X	X	4	X	20	29	48	58
Philippines	80	93	84	63	89	75	100	100	79	77	35	X	91	95	93	95
Singapore	X	100	b	100	b	X	91	92	75	76	39	X	82	88	94	96
Sri Lanka	52	88	57	62	68	63	100	100	79	73	5	X	84	88	93	94
Tajikistan	49	82	60	X	46	X	X	X	X	X	20	X	97	99	99	100
Thailand	73	88	81	94	97	96	89	87	47	48	21	X	88	93	95	97
Turkmenistan	X	X	74	X	X	91	X	X	X	X	20	X	X	X	X	X
Uzbekistan	88	99	90	99	100	100	X	X	X	X	36	X	76	83	88	93
Viet Nam	42	47	43	15	43	21	100	100	54	56	7	X	86	91	94	95
EUROPE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Albania	X	X	X	X	X	X	X	X	X	X	11	57	66	76	85	91
Austria	X	X	X	X	X	X	100	100	97	98	48	49	X	X	X	X
Belarus	X	X	X	X	X	X	X	X	X	X	44	55	99	99	100	100
Belgium	X	X	X	X	X	X	100	100	100	100	57	X	X	X	X	X
Bosnia and Herzegovina	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Bulgaria	X	X	X	X	X	X	99	97	75	80	41	61	96	98	98	99
Croatia	X	X	X	X	X	X	100	100	73	72	28	51	94	97	99	99
Czech Rep	X	X	X	X	X	X	100	100	100	100	24	48	X	X	X	X
Denmark	X	X	X	X	X	X	100	100	95	94	X	X	X	X	X	X
Estonia	X	X	X	X	X	X	100	100	87	85	45	53	X	X	X	X
Finland	X	X	X	X	X	X	100	100	96	95	74	53	X	X	X	X
France	X	X	X	X	X	X	100	100	99	99	51	55	X	X	X	X
Germany	X	X	X	X	X	X	100	100	95	96	47	46	X	X	X	X
Greece	X	X	X	X	X	X	100	100	93	90	47	48	91	96	98	98
Hungary	X	X	X	X	X	X	97	98	98	96	25	X	99	99	99	99
Iceland	X	X	X	X	X	X	100	100	88	87	36	58	X	X	X	X
Ireland	X	X	X	X	X	X	100	100	100	100	41	52	X	X	X	X
Italy	X	X	X	X	X	X	100	100	96	94	47	54	97	98	98	99
Latvia	X	X	X	X	X	X	100	100	81	81	33	60	100	100	100	100
Lithuania	X	X	X	X	X	X	X	X	X	X	31	59	99	99	100	100
Macedonia, FYR	X	X	X	X	X	X	95	96	55	57	20	54	X	X	X	X
Moldova, Rep	18	98	55	8	90	50	X	X	X	X	27	55	95	98	99	100
Netherlands	X	X	X	X	X	X	100	100	100	100	47	48	X	X	X	X
Norway	X	X	X	X	X	X	100	100	98	97	62	56	X	X	X	X
Poland	X	X	X	X	X	X	99	100	89	85	24	X	99	100	100	100
Portugal	X	X	X	X	X	X	100	100	91	88	38	X	83	89	90	94
Romania	X	X	X	X	X	X	100	100	76	75	23	53	95	97	99	99
Russian Federation	X	X	X	X	X	X	100	100	91	85	41	X	99	99	100	100
Slovakia	X	X	X	X	X	X	X	X	X	X	22	50	X	X	X	X
Slovenia	X	X	X	X	X	X	94	95	X	X	36	56	100	100	100	100
Spain	X	X	X	X	X	X	100	100	93	91	53	53	94	97	98	98
Sweden	X	X	X	X	X	X	100	100	100	100	50	56	X	X	X	X
Switzerland	X	X	X	X	X	X	100	100	80	87	34	X	X	X	X	X
Ukraine	X	X	X	X	X	X	X	X	X	X	42	X	99	99	100	100
United Kingdom	X	X	X	X	X	X	100	100	93	91	52	52	X	X	X	X
Yugoslavia	57	98	76	49	92	69	X	X	X	X	22	54	X	X	X	X
MIDDLE EAST & N. AFRICA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Afghanistan	5	39	12	1	38	8	33	66	14	30	2	X	6	19	36	50
Algeria	64	91	78	80	99	91	93	99	64	73	13	X	38	54	65	77
Egypt	79	97	87	79	98	88	91	100	70	80	23	X	32	42	59	66
Iran, Islamic Rep	82	98	90	74	86	81	89	91	76	86	18	36	52	67	71	82
Iraq	48	96	81	31	93	75	70	80	34	52	11	X	31	43	55	64
Israel	X	X	X	X	X	X	X	X	X	X	44	X	90	94	96	98
Jordan	X	X	98	X	X	77	X	X	X	X	19	47	68	83	88	94
Kuwait	X	X	X	X	100	b	64	66	63	63	19	62	72	79	80	83
Lebanon	88	96	94	8	81	63	X	X	X	X	27	X	71	79	87	92
Libyan Arab Jamahiriya	97	97	97	94	99	98	100	100	100	100	20	X	48	65	81	90
Morocco	34	98	65	24	94	58	67	86	32	43	11	41	23	34	51	60
Oman	X	X	85	57	90	78	67	69	65	68	8	45	34	58	65	78
Saudi Arabia	74	b	100	95	b	100	b	58	62	53	16	47	47	64	77	83
Syrian Arab Rep	77	95	86	30	96	91	99	99	39	45	15	X	45	58	80	87
Tunisia	95	100	98	52	96	80	100	100	72	76	14	45	44	58	69	79
Turkey	25	66	49	56	95	80	98	100	49	68	21	35	65	75	88	93
United Arab Emirates	X	X	97	X	X	92	81	83	80	76	12	X	69	77	70	73
Yemen	55	88	61	17	47	24	X	X	X	X	4	13	10	23	51	66

Data Table HD.3 continued

	Population with Access to Safe Water (percent)			Population with Access to Sanitation (percent)			Net Primary School Enrollment (percent)		Net Secondary School Enrollment (percent)		Gross Tertiary School Enrollment		Adult Literacy Rate (percent)			
	Rural	Urban	Total	Rural	Urban	Total	Female	Male	Female	Male	Total (percent)	Females (percent of total)	Female		Male	
	1990-97 (a)	1990-97 (a)	1990-97 (a)	1990-97 (a)	1990-97 (a)	1990-97 (a)	1996-97 (a)	1996-97 (a)	1996-97 (a)	1996-97 (a)	1996-97	1996-97	1985	1995	1985	1995
	97 (a)	97 (a)	97 (a)	97 (a)	97 (a)	97 (a)	97 (a)	97 (a)	97 (a)	97 (a)	1996-97	1996-97	1985	1995	1985	1995
SUB-SAHARAN AFRICA	39 c	75 c	50 c	34 c	66 c	44 c	X	X	X	X	X	X	X	X	X	X
Angola	22	46	31	27	62	40	34	35	28	34	1	X	X	X	X	X
Benin	71	46	56	8	57	27	50	85	18	38	3	19	15	23	38	54
Botswana	88	100	90	41	91	55	83	78	91	86	6	47	68	78	64	73
Burkina Faso	37	66	42	33	41	37	25	39	9	16	1	23	7	13	24	32
Burundi	49	92	52	50	60	51	33	38	14	20	1	X	25	38	49	55
Cameroon	43	57	50	36	64	50	59	64	35	45	4	X	50	67	70	80
Central African Rep	21	55	38	16	38	27	38	55	13	26	1	X	19	32	45	58
Chad	17	48	24	7	73	21	35	61	10	26	1	X	17	31	34	49
Congo	7	53	34	X	X	69	76	81	74	94	8	X	54	72	75	86
Congo, Dem Rep	26	89	42	6	53	18	48	69	29	46	2	X	31	47	59	71
Côte d'Ivoire	32	56	42	17	71	39	50	66	24	45	5	X	21	36	41	53
Equatorial Guinea	100	88	95	48	61	54	80	79	65	72	2	X	59	72	85	91
Eritrea	8	60	22	0	48	13	28	31	34	41	1	13	26	38	57	66
Ethiopia	19	91	25	7	97	19	27	44	18	32	1	20	18	31	34	42
Gabon	30	80	67	X	72	X	X	X	X	X	8	X	X	X	X	X
Gambia	65	80	69	23	83	37	58	74	25	42	2	X	17	28	29	42
Ghana	52	88	65	44	62	55	X	X	X	X	1	X	44	60	68	79
Guinea	36	69	46	19	54	31	33	58	7	22	1	11	X	X	X	X
Guinea-Bissau	67	32	43	X	X	46	39	66	16	32	X	X	11	17	44	57
Kenya	49	67	53	81	69	77	67	63	57	65	2	X	57	74	79	88
Lesotho	57	91	62	35	56	38	74	63	80	66	2	54	88	93	64	71
Liberia	13	79	46	4	56	30	X	X	X	X	3	X	25	34	55	67
Madagascar	12	68	26	30	68	40	X	X	X	X	2	45	48	58	65	72
Malawi	40	95	47	1	18	3	100	97	54	91	1	X	36	44	68	73
Mali	55	87	66	3	12	6	31	45	13	23	1	20	17	31	30	46
Mauritania	59	88	74	19	44	32	X	X	X	X	4	X	25	31	46	52
Mozambique	X	X	63	X	X	54	34	45	17	28	1	24	16	27	47	58
Namibia	71	100	83	20	93	62	94	89	84	77	9	X	71	80	76	82
Niger	44	76	48	5	79	17	19	30	7	12	1	X	4	7	17	22
Nigeria	40	58	49	32	50	41	X	X	X	X	4	X	35	53	57	70
Rwanda	79	X	X	85	X	X	X	X	X	X	1	X	44	57	63	72
Senegal	44	90	63	15	71	39	54	65	16	24	3	X	17	26	37	45
Sierra Leone	21	58	34	8	17	11	X	X	X	X	2	X	X	X	X	X
Somalia	X	X	26	X	X	X	X	X	X	X	2	X	X	X	X	X
South Africa	70	99	87	80	92	87	100	100	97	93	X	X	79	84	81	85
Sudan	X	X	73	X	X	51	X	X	X	X	4	X	29	43	59	68
Tanzania, United Rep	58	92	66	83	98	86	49	48	X	X	1	20	48	64	75	83
Togo	41	82	55	22	76	41	70	94	40	77	4	17	27	38	62	73
Uganda	41	77	46	55	75	57	X	X	X	X	2	33	41	54	68	76
Zambia	10	84	38	57	94	71	72	73	35	49	3	X	56	69	77	84
Zimbabwe	69	99	79	32	96	52	92	94	56	62	7	36	73	83	85	92
NORTH AMERICA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Canada	X	X	X	X	X	X	100	100	94	96	90	X	X	X	X	X
United States	X	X	X	X	X	X	100	100	96	97	81	X	X	X	X	X
C. AMERICA & CARIBBEAN	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Belize	69	100	83	87	23	57	100	100	63	65	1	X	87	92	89	93
Costa Rica	92	100	96	70	95	84	89	89	X	X	33	X	94	95	94	95
Cuba	85	96	93	51	71	66	100	100	73	67	12	60	95	96	95	97
Dominican Rep	X	80	65	83	76	78	94	89	82	75	23	57	78	83	79	83
El Salvador	40	84	66	80	98	90	89	89	37	36	18	50	67	75	75	81
Guatemala	78	76	77	74	95	83	70	77	32	38	8	X	52	60	68	75
Haiti	28	50	37	17	49	25	X	X	X	X	1	X	35	46	41	50
Honduras	62	X	76	57	X	74	89	86	38	34	11	X	66	74	68	73
Jamaica	X	X	86	80	100	89	96	96	72	68	8	X	85	90	77	82
Mexico	X	X	85	X	X	72	100	100	64	68	16	48	84	89	90	93
Nicaragua	32	88	62	35	34	35	80	77	53	49	12	53	65	69	63	66
Panama	X	X	93	X	X	83	90	90	72	71	32	X	88	91	89	92
Trinidad and Tobago	91	99	97	98	99	79	100	100	72	71	8	X	88	92	94	95
SOUTH AMERICA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Argentina	29	77	71	37	73	68	100	100	80	74	42	X	95	97	96	97
Bolivia	32	86	63	37	74	58	95	100	37	43	24	X	68	78	86	91
Brazil	25	88	76	30	80	70	94	100	67	65	15	X	79	85	81	85
Chile	41	99	91	X	90	X	89	92	87	83	31	46	93	95	94	96
Colombia	56	97	85	56	97	85	89	89	78	75	17	52	88	91	88	91
Ecuador	49	80	68	49	95	76	100	100	51	51	26	X	84	89	89	93
Guyana	85	96	91	85	90	88	93	93	76	73	11	51	96	98	98	99
Paraguay	X	X	60	14	65	41	97	96	60	62	10	55	87	92	92	94
Peru	33	84	67	37	89	72	93	94	81	87	26	X	78	84	91	94
Suriname	X	X	X	43	X	X	X	X	X	X	14	X	X	X	X	X
Uruguay	X	95	X	X	98	X	95	94	89	79	30	X	97	98	96	97
Venezuela	75	80	79	30	64	58	84	81	54	44	25	X	87	91	90	93
OCEANIA	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Australia	X	X	X	X	X	X	100	100	96	96	80	51	X	X	X	X
Fiji	X	X	77	85	100	92	100	100	84	84	13	X	84	90	91	94
New Zealand	82	100	97	X	X	X	100	100	94	92	63	57	X	X	X	X
Papua New Guinea	23	78	32	80	93	83	X	X	X	X	3	X	47	55	65	71
Solomon Islands	62	80	X	9	60	X	X	X	X	X	X	X	X	X	X	X
DEVELOPED	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
DEVELOPING	62 c	89 c	71 c	25 c	78 c	44 c	X	X	X	X	X	X	X	X	X	X

Notes: Zero is either 0 or less than one-half the unit of measure. a. Data are for the most recent year available within the range specified. b. Data refer to years or periods other than those specified in the column heading, differ from the standard definition, or refer to only part of a country. c. Total calculated by source.

Sources: United Nations Children's Fund and the United Nations Educational, Scientific and Cultural Organization

Basic Economic Indicators

Gross Domestic Product and
Trade Values

	Gross Domestic Product (GDP)										Exports of Goods and Services (million US\$)	Imports of Goods and Services (million US\$)		
	Purchasing Power Parity (PPP) (Current Int\$)		Exchange Rate Based (GDP) (1995 US\$)		Average Annual GDP Growth Rate (percent) (a)		Distribution (percent) (b)							
	Total Value (million Int\$)	Per Capita (Int\$)	Total (million US\$)	Per Capita (US\$)	1978-87 1988-97		1997			1997				
	1997	1997	1997	1997			Agriculture	Industry	Services					
							1997	1997	1997	1997	1997	1997		
WORLD	X	X	30,643,610	5,262	2.5	2.2					6,869,405	6,760,876		
ASIA (EXCL. MIDDLE EAST)	X	X	X	X	X	X	X	X	X	X	X	X		
Armenia	8,939	2,518	3,149	887	X	X	41	36	23		330	952		
Azerbaijan	11,771	1,540	3,651	478	X	(11.6)	22	18	60		1,154	1,900		
Bangladesh	129,666	1,057	41,816	341	4.2	4.1	24	27	49		5,096	7,677		
Bhutan	X	X	X	X	X	X	38	38	25		121	162		
Cambodia	13,494	1,288	3,175	303	X	4.2	51	15	34		896	1,252		
China	3,837,794	3,085	834,973	671	8.3	8.2	19	49	32		207,251	166,754		
Georgia	10,650	2,080	3,716	726	2.6	(13.7)	32	23	45		622	1,192		
India	1,609,656	1,666	377,811	391	3.7	5.0	25	30	45		44,102	59,236		
Indonesia	699,784	3,441	228,639	1,124	5.4	6.7	16	43	41		63,238	62,830		
Japan	3,035,467	24,084	5,384,154	42,719	3.2	2.2	2	38	60	b	478,542	431,094		
Kazakhstan	56,223	3,434	20,365	1,244	X	(5.7)	12	27	61		7,611	8,279		
Korea, Dem People's Rep	X	X	X	X	X	X	X	X	X		X	X		
Korea, Rep	624,914	13,665	515,527	11,273	6.5	6.4	6	43	51		164,922	171,297		
Kyrgyzstan	10,423	2,256	3,913	847	X	(4.7)	45	23	33		676	817		
Lao People's Dem Rep	6,317	1,255	2,007	399	X	6.4	52	21	26		417	715		
Malaysia	176,444	8,409	102,258	4,873	4.7	7.5	12	47	41		92,897	91,522		
Mongolia	3,318	1,308	1,014	400	X	(0.7)	37	24	40		504	535		
Myanmar	X	X	X	X	X	X	59	10	31		1,439	2,415		
Nepal	24,270	1,088	4,813	216	3.0	4.3	41	22	36		1,295	1,855		
Pakistan	199,960	1,388	63,835	443	5.8	3.7	25	25	50		9,956	14,677		
Philippines	258,882	3,624	82,555	1,156	1.2	3.0	19	32	49		40,365	50,477		
Singapore	88,317	25,772	98,071	28,619	5.9	7.3	0	35	65		156,252	144,168		
Sri Lanka	46,205	2,528	14,376	787	4.2	4.4	22	26	52		5,514	6,569		
Tajikistan	6,505	1,115	1,601	274	X	X	X	X	X		804	801		
Thailand	405,587	6,790	176,648	2,957	5.1	6.8	11	40	49		72,415	72,437		
Turkmenistan	9,453	2,275	4,197	1,010	X	X	X	X	X		759	1,004		
Uzbekistan	57,347	2,510	24,026	1,035	X	(0.8)	31	27	42		3,980	4,417		
Viet Nam	125,332	1,641	24,081	315	X	6.9	26	31	43		11,485	13,465		
EUROPE	X	X	X	X	X	X	X	X	X	X	X	X		
Albania	7,046	2,250	2,460	785	X	(1.3)	63	18	19		222	809		
Austria	178,176	22,000	244,751	30,220	1.9	2.4	1	30	68	b	85,323	87,821		
Belarus	49,758	4,807	20,976	2,026	X	(2.5)	14	44	42		8,306	9,103		
Belgium	231,822	22,892	285,386	28,182	1.4	1.7	1	27	72	b	185,404	174,267		
Bosnia and Herzegovina	X	X	X	X	X	X	X	X	X		X	X		
Bulgaria	33,303	3,968	10,960	1,306	X	(4.4)	23	26	50		6,251	5,685		
Croatia	22,797	5,080	18,859	4,202	X	X	12	25	62	d	8,198	11,402		
Czech Rep	108,298	10,514	53,385	5,183	X	(0.6)	6	40	54	e	29,869	32,713		
Denmark	125,197	23,819	193,417	36,799	2.0	1.9	4	27	69	d	63,680	57,971		
Estonia	7,647	5,284	5,547	3,833	X	(2.8)	7	28	65		3,609	4,142		
Finland	103,572	20,145	138,237	26,888	3.2	1.2	4	34	62	b	48,228	37,976		
France	1,290,861	22,077	1,594,793	27,275	1.7	1.6	2	26	72	b	365,342	319,781		
Germany	1,744,929	21,265	2,486,982	30,308	X	X	1	34	44	b	590,985	558,836		
Greece	131,946	12,485	117,760	11,182	1.3	X	11	18	71	d	14,863	25,601		
Hungary	73,095	7,197	47,343	4,662	2.1	(0.9)	6	34	60		24,514	25,067		
Iceland	5,932	21,889	7,346	27,105	3.6	X	11	26	63	d	2,687	2,650		
Ireland	75,805	20,725	77,112	21,083	2.3	6.0	6	31	62	d	61,447	51,711		
Italy	1,167,362	20,345	1,111,646	19,374	2.2	1.3	3	31	66	b	310,550	261,885		
Latvia	9,705	3,944	6,883	2,797	3.1	(5.6)	7	31	62		2,871	3,348		
Lithuania	15,653	4,225	7,624	2,058	X	(3.2)	13	32	55		5,224	6,237		
Macedonia, FYR	6,407	3,225	2,124	1,069	X	X	12	27	61		1,330	1,862		
Moldova, Rep	6,470	1,478	2,889	660	X	(9.5)	31	35	34		1,023	1,430		
Netherlands	329,522	21,104	424,445	27,183	1.4	2.6	3	27	70	d	213,503	191,173		
Norway	107,688	24,499	159,952	36,389	3.0	3.0	2	32	66	b	63,213	52,286		
Poland	252,121	6,516	134,724	3,482	X	1.1	6	39	55	d	39,717	46,367		
Portugal	141,897	14,386	112,328	11,388	2.5	2.5	4	32	64	d	32,339	40,684		
Romania	97,102	4,306	31,874	1,414	2.0	(2.6)	20	45	36		9,853	12,448		
Russian Federation	644,202	4,363	338,180	2,290	X	X	8	37	55		102,196	90,065		
Slovakia	42,575	7,925	19,746	3,675	X	(0.4)	5	33	62		10,959	12,367		
Slovenia	23,444	11,749	20,062	10,055	X	X	5	39	57		10,449	10,631		
Spain	626,346	15,812	593,347	14,979	1.8	2.1	3	32	25	b	148,357	142,478		
Sweden	175,145	19,777	237,042	26,766	1.9	0.9	2	30	68	d	100,989	84,779		
Switzerland	178,919	24,677	312,634	43,120	1.6	0.9	X	X	X		121,737	109,063		
Ukraine	111,126	2,176	74,762	1,464	X	(9.1)	12	40	48		20,355	21,891		
United Kingdom	1,223,547	20,900	1,172,327	20,025	2.0	1.5	2	31	67	b	366,505	371,843		
Yugoslavia	X	X	X	X	X	X	X	X	X		X	X		
MIDDLE EAST & N. AFRICA	X	X	X	X	X	X	X	X	X	X	X	X		
Afghanistan	X	X	X	X	X	X	X	X	X		X	X		
Algeria	130,735	4,448	43,381	1,476	3.2	0.9	11	49	39		14,890	10,280		
Egypt	184,009	2,843	65,469	1,011	5.3	3.7	18	32	51		16,171	18,296		
Iran, Islamic Rep	X	X	X	X	(0.6)	X	25	34	40	d	18,978	17,446		
Iraq	X	X	X	X	X	X	X	X	X		X	X		
Israel	105,912	18,073	92,603	15,802	3.9	4.6	X	X	X		30,320	38,810		
Jordan	15,305	2,499	6,757	1,103	6.1	2.5	3	25	71		3,893	5,652		
Kuwait	28,684	16,978	26,558	15,750	X	(1.8)	0	54	46	d	16,044	12,998		
Lebanon	24,609	7,830	X	X	X	X	12	27	61		1,557	8,053		
Libyan Arab Jamahiriya	X	X	X	X	X	X	X	X	X		X	X		
Morocco	90,313	3,359	36,232	1,347	3.5	2.0	15	33	51		9,510	10,627		
Oman	21,307	9,887	12,102	5,427	7.9	X	X	X	X		7,649	5,815		
Saudi Arabia	203,149	10,429	129,884	6,668	0.5	2.5	6	45	49		64,168	51,632		
Syrian Arab Rep	48,392	3,237	17,596	1,177	2.6	4.0	X	X	X		5,661	5,092		
Tunisia	48,857	5,305	20,302	2,204	3.9	4.1	13	29	58		8,081	8,644		
Turkey	404,498	6,380	194,681	3,071	3.9	3.9	15	28	57		52,004	56,536		
United Arab Emirates	42,385	19,181	X	X	X	X	2	57	40	e	X	X		
Yemen	12,951	795	4,063	249	X	X	18	49	34		2,522	3,005		

	Gross Domestic Product (GDP)										Exports of Goods and Services (million US\$) 1997	Imports of Goods and Services (million US\$) 1997
	Purchasing Power Parity (PPP) (Current Int\$)		Exchange Rate Based (GDP) (1995 US\$)		Average Annual GDP Growth Rate (percent) (a)		Distribution (percent) (b)					
	Total Value (million Int\$)	Per Capita (Int\$)	Total (million US\$)	Per Capita (US\$)	1978-87 1988-97			Agriculture	Industry	Services		
	1997	1997	1997	1997	1978-87	1988-97	1997	1997	1997	1997	1997	
SUB-SAHARAN AFRICA	X	X	X	X	X	X	X	X	X	X	X	X
Angola	16,704	1,426	6,075	519	X	(0.1)	9	62	29	5,286	4,681	
Benin	7,377	1,311	2,241	398	3.6	3.5	38	14	48	530	696	
Botswana	11,796	7,657	5,243	3,403	8.8	5.3	3	48	49	2,381 a	1,770 a	
Burkina Faso	10,543	958	2,626	239	3.1	2.7	35	27	38	332	723	
Burundi	4,040	635	918	144	3.7	(1.5)	53	17	30	96	139	
Cameroon	26,406	1,896	8,790	631	5.3	(0.8)	41	21	38	2,443	2,041	
Central African Rep	4,546	1,329	1,182	346	0.2	0.7	54	18	28	213	237	
Chad	6,918	976	1,588	224	(1.3)	3.6	39	15	46	271	587	
Congo	4,397	1,623	2,206	815	6.7	1.0	10	57	33	1,800	1,368	
Congo, Dem Rep	40,882	852	5,923	123	1.9	(5.2)	58	17	25	1,445	1,385	
Côte d'Ivoire	26,134	1,858	11,206	797	(0.5)	2.3	27	21	51	4,927	3,694	
Equatorial Guinea	X	X	373	887	X	11.8	23	67	10	431	694	
Eritrea	3,097	902	661	193	X	X	9	30	61	201	583	
Ethiopia (f)	30,194	519	6,750	116	X	2.7	55	7	38	1,017	1,683	
Gabon	8,704	7,655	5,358	4,712	(0.4)	3.6	7	55	37	3,295	2,165	
Gambia	1,731	1,455	412	346	2.7	2.7	30	15	55	229	282	
Ghana	29,494	1,581	7,042	377	0.6	3.8	36	26	39	1,657	2,641	
Guinea	13,016	1,777	4,026	550	X	3.9	23	35	42	741	834	
Guinea-Bissau	X	X	279	246	1.7	3.7	54	11	35	56	107	
Kenya	33,917	1,192	9,625	338	3.8	2.3	29	16	56	2,994	3,771	
Lesotho	3,751	1,861	1,037	514	1.4	6.4	11	42	47	309	1,214	
Liberia	X	X	X	X	X	X	X	X	X	X	X	
Madagascar	13,109	897	3,343	229	0.5	1.1	32	14	55	772	1,063	
Malawi	7,278	723	1,703	169	1.6	3.5	36	18	46	615	1,153	
Mali	7,637	732	2,735	262	1.6	3.5	49	17	34	644	897	
Mauritania	4,265	1,733	1,168	475	2.0	3.0	25	29	46	463	387	
Mozambique	12,324	668	2,332	126	X	4.2	31	24	45	499	1,007	
Namibia	8,137	5,017	3,494	2,154	X	2.9	11	33	56	1,726	1,908	
Niger	8,292	849	2,009	206	(0.3)	1.0	38	18	44	301	442	
Nigeria	107,959	1,039	31,080	299	(0.3)	3.7	33	47	20	15,994	14,213	
Rwanda	5,172	868	1,647	276	3.8	(2.3)	37	26	36	152	488	
Senegal	15,230	1,736	4,998	570	2.7	2.0	18	22	59	1,475	1,716	
Sierra Leone	1,954	442	726	164	0.8	(3.7)	50	21	29	92	146	
Somalia	X	X	X	X	X	X	X	X	X	X	X	
South Africa	299,577	7,729	140,257	3,619	2.0	1.1	5	39	57	35,440	34,625	
Sudan	43,389	1,565	8,089	292	0.4	5.1	X	X	X	613	1,614	
Tanzania, United Rep (g)	18,091	576	5,013	160	X	2.8	47	21 b	31 b	1,200	1,962	
Togo	6,463	1,509	1,496	349	0.9	1.6	42	21	37	632	724	
Uganda	23,622	1,181	6,622	331	X	6.0	44	17	39	825	1,651	
Zambia	9,087	1,058	3,855	449	0.6	0.7	16	31	52	1,276	1,474	
Zimbabwe	26,931	2,401	7,902	705	4.1	2.5	19	25	56	3,045	3,873	
NORTH AMERICA	X	X	X	X	X	X	X	X	X	X	X	
Canada	680,923	22,502	612,021	20,225	2.6	1.7	3 e	30 e	67 e	247,438	236,225	
United States	7,765,237	28,573	7,786,572	28,651	2.0	2.5	2 b	27 b	71 b	937,434	1,043,477	
C. AMERICA & CARIBBEAN	X	X	X	X	X	X	X	X	X	X	X	
Belize	986	4,396	616	2,749	3.8	4.7	23	28	49	317	362	
Costa Rica	23,049	6,149	9,256	2,470	1.7	3.4	15	23	62	4,478	4,667	
Cuba	X	X	X	X	X	X	X	X	X	X	X	
Dominican Rep	39,097	4,828	13,843	1,710	3.5	3.4	12	32	55	6,420	7,124	
El Salvador	17,085	2,890	10,058	1,702	(2.8)	4.1	13	28	60	2,706	3,885	
Guatemala	43,091	4,096	15,734	1,496	0.6	3.5	24	20	56	3,187	4,193	
Haiti	9,485	1,213	2,738	350	0.8	(1.2)	30	20	50	218	809	
Honduras	13,274	2,219	4,273	714	2.0	2.8	20	28	52	2,191	2,511	
Jamaica	8,776	3,488	4,011	1,594	0.2	1.3	8	35	57	3,177	3,984	
Mexico	790,026	8,380	321,957	3,415	2.0	2.8	5	26	69	121,829	122,424	
Nicaragua	8,877 b	1,950 b	2,371 b	521 b	(2.7)	X	34 b	22 b	44 b	863	1,609	
Panama	18,713 b	6,991 b	8,106 b	3,028 b	2.4	X	8 b	18 b	73 b	8,276	8,581	
Trinidad and Tobago	8,936	6,999	5,670	4,441	1.6	1.4	2	46	52	2,698	2,857	
SOUTH AMERICA	X	X	X	X	X	X	X	X	X	X	X	
Argentina	367,487	10,302	319,501	8,957	1.1	3.2	7	33	61	28,494	34,758	
Bolivia	22,399	2,881	7,284	937	X	3.6	16	33	51	1,362	2,049	
Brazil	1,059,971	6,475	746,778	4,562	3.2	2.0	8	35	57	60,256	79,817	
Chile	186,067	12,723	68,220	4,665	3.2	6.9	7	31	61	20,608	22,218	
Colombia	272,847	6,814	84,695	2,115	3.1	3.5	11	20	69	15,861	18,784	
Ecuador	58,979	4,941	18,913	1,584	1.7	2.5	12	35	53	6,000	5,787	
Guyana	2,721	3,226	X	X	(2.3)	X	36 d	37 d	27 d	629 b	699	
Paraguay	20,246	3,979	9,415	1,850	3.7	2.9	23	22	55	4,343	4,960	
Peru	114,080	4,682	64,906	2,664	2.5	2.2	7	36	57	8,356	10,842	
Suriname	X	X	X	X	(4.2)	X	26 e	26 e	48 e	519 b	454 b	
Uruguay	30,046	9,201	19,956	6,111	0.9	3.0	8	27	64	4,256	4,450	
Venezuela	201,843	8,862	80,843	3,549	0.1	1.9	4	41	55	25,120	18,282	
OCEANIA	X	X	X	X	X	X	X	X	X	X	X	
Australia	374,536	20,430	382,114	20,843	2.8	2.4	3 b	26 b	71 b	83,705	81,877	
Fiji	3,249	4,132	1,983	2,522	1.0	2.9	18	26	56	1,202	1,242	
New Zealand	65,488	17,412	63,317	16,834	2.0	2.0	7 d	26 d	67 d	17,835	18,434	
Papua New Guinea	X	X	4,901	1,089	1.4	3.0	28	36	36	2,462	2,656	
Solomon Islands	932	2,306	328	810	6.7	3.7	X	X	X	239	292	
LOW INCOME (h)	X	X	737,334	X	3.1	3.4	28	28	43	140,087	180,867	
MIDDLE INCOME (h)	X	X	5,053,564	X	3.0	2.3	11	37	52	1,382,960	1,393,256	
HIGH INCOME (h)	X	X	24,848,389	X	2.4	2.2	2 b	31 b	63 b	5,346,334	5,186,801	

Notes: Negative values are shown in parentheses. Zero is either 0 or less than one-half the unit of measure. a. Figures were calculated using GDP in constant 1995 U.S. dollars. b. Data are from 1996. c. Data for Belgium include Luxembourg. d. Data are from 1995. e. Data are from 1993. f. Data for Ethiopia before 1993 include Eritrea. g. Data refer to mainland only. h. As defined by the World Bank (World Development Indicators 1999).

Sources: United Nations Population Division and World Bank

	Average Annual Official Development Assistance (ODA) and Official Aid (OA) (million US\$) (a)		ODA and OA as a Percentage of Gross Domestic Product (GDP) (b)	ODA and OA Per Capita (US\$) (a)	Direct Foreign Investment (million US\$)		Total External Debt (million US\$)		Debt Service as a Percentage of Total Exports 1995-97	International Tourism Receipts (million US\$)	
	1985-87	1995-97			1985-87	1995-97	1985-87	1995-97		1985-87	1995-97
	1985-87	1995-97			1985-87	1995-97	1985-87	1995-97		1985-87	1995-97
WORLD	41,778	63,183	X	11	88,182	339,354	X	X	X	140,488	427,057
ASIA (EXCL. MIDDLE EAST)	X	X	X	X	X	X	X	X	X	14,830	65,888
Armenia	X	229	2.7	64	X	28	X	529	7	X	8
Azerbaijan	X	136	1.2	18	X	509	X	420	3	X	154
Bangladesh	1,470	1,182	1.0	10	2	51	8,433	15,819	12	16	33
Bhutan	35	69	X	36	0	0	23	88	6	1	6
Cambodia	166	465	3.5	45	X	216	X	2,088	1	X	121
China	1,140	2,751	0.1	2	1,949	40,088	25,252	131,201	9	1,548	10,336
Georgia	X	259	2.7	50	X	33	X	1,331	4	X	X
India	1,881	1,787	0.1	2	145	2,640	48,199	94,076	24	1,223	2,908
Indonesia	812	1,123	0.2	6	318	5,073	44,042	129,837	32	651	5,968
Japan	(5,591)	(11,095)	(0.4)	(88)	675	1,147	X	X	X	1,566	3,875
Kazakhstan	X	108	0.2	7	X	1,141	X	3,717	5	X	X
Korea, Dem People's Rep	63	86	X	4	0	4	X	X	X	X	X
Korea, Rep	(5)	(82)	X	(2)	436	2,315	52,318	130,048	9	1,544	5,406
Kyrgyzstan	X	253	X	55	X	64	X	767	9	X	4
Lao People's Dem Rep	156	331	X	68	0	94	883	2,249	6	X	52
Malaysia	262	(193)	(0.1)	(9)	535	4,772	21,663	40,415	8	651	3,895
Mongolia	674	223	6.3	89	X	7	X	585	10	X	21
Myanmar	373	91	X	2	(1)	98	3,768	5,343	13	14	34
Nepal	300	418	1.8	19	1	17	782	2,409	7	57	118
Pakistan	744	765	0.4	5	122	783	15,072	29,879	29	181	126
Philippines	704	831	0.3	12	149	1,406	28,209	41,136	13	1,010	2,662
Singapore	26	11	0.0	3	1,864	7,820	X	X	X	1,838	8,111
Sri Lanka	500	467	1.1	26	38	202	4,125	7,957	7	82	203
Tajikistan	X	93	X	16	X	17	X	745	2	X	X
Thailand	465	775	0.2	13	259	2,716	18,823	89,040	13	1,513	8,343
Turkmenistan	X	21	X	5	X	64	X	975	23	d	7
Uzbekistan	X	101	X	4	X	152	X	2,304	9	X	X
Viet Nam	1,696	933	0.8	12	X	1,567	X	24,437	6	28	e
EUROPE	X	X	X	X	X	X	X	X	X	72,752	203,888
Albania	X	194	2.7	62	X	69	X	674	4	X	9
Austria	(216)	(617)	(0.4)	(77)	256	2,951	X	X	X	6,967	13,659
Belarus	X	113	0.2	11	X	98	X	1,308	2	X	40
Belgium	(558)	(904)	(0.4)	(89)	X	X	X	X	X	2,305	5,870
Bosnia and Herzegovina	X	884	X	256	X	X	X	X	X	X	13
Bulgaria	X	168	0.5	20	0	232	5,994	10,072	17	398	417
Croatia	X	77	X	17	X	341	X	5,168	7	X	1,843
Czech Rep	X	129	X	12	0	1,763	4,347	19,166	10	X	3,550
Denmark	(665)	(1,677)	(1.4)	(320)	120	2,568	X	X	X	1,768	3,419
Estonia	X	62	0.9	42	X	206	X	450	1	X	433
Finland	(319)	(392)	(0.4)	(76)	242	1,430	X	X	X	655	1,616
France	(4,142)	(7,400)	(0.6)	(127)	3,664	22,917	X	X	X	9,845	28,067
Germany	(3,722)	(6,994)	(0.4)	(85)	1,110	3,469	X	X	X	6,240	17,338
Greece	21	X	0	534	1,032	X	X	X	X	1,843	3,886
Hungary	X	39	0.1	4	0	2,860	16,817	27,641	37	375	2,180
Iceland	X	X	X	0	12	66	X	X	X	62	159
Ireland	(51)	(173)	(0.2)	(48)	71	2,264	X	X	X	670	2,980
Italy	(2,039)	(1,768)	(0.2)	(31)	1,692	4,034	X	X	X	10,262	29,247
Latvia	X	75	0.8	30	X	361	X	480	3	X	128
Lithuania	X	125	0.8	34	X	193	X	1,177	3	X	276
Macedonia, FYR	X	111	1.8	56	X	12	X	1,546	5	X	X
Moldova, Rep	X	56	X	13	X	36	X	855	8	X	41
Netherlands	(1,657)	(3,140)	(1.0)	(202)	2,554	9,328	X	X	X	2,192	6,205
Norway	(754)	(1,287)	(1.2)	(294)	259	3,048	X	X	X	1,023	2,429
Poland	X	1,860	0.8	48	14	4,355	37,517	42,542	8	146	7,900
Portugal	(24)	(242)	(0.2)	(25)	326	1,035	X	X	X	1,605	4,288
Romania	X	250	0.2	11	0	632	6,857	8,764	13	X	556
Russian Federation	X	1,193	X	8	0	3,579	32,447	123,752	7	X	5,952
Slovakia	X	104	X	19	0	210	1,289	7,786	12	X	609
Slovenia	X	77	0.3	39	X	227	X	X	X	X	1,196
Spain	(201)	(1,278)	(0.2)	(32)	3,330	6,070	X	X	X	11,656	26,553
Sweden	(1,102)	(1,811)	(1.0)	(205)	705	10,100	X	X	X	1,592	3,633
Switzerland	(424)	(1,007)	(0.6)	(140)	1,903	3,558	X	X	X	4,239	8,739
Ukraine	X	296	0.3	6	X	470	X	9,597	6	X	199
United Kingdom	(1,713)	(3,278)	(0.3)	(56)	9,925	28,061	X	X	X	8,503	19,473
Yugoslavia	X	88	X	8	X	0	22,074	14,128	X	X	42
MIDDLE EAST & N. AFRICA	X	X	X	X	X	X	X	X	X	9,207	21,428
Afghanistan	260	241	X	12	0	0	X	X	X	1	1
Algeria	148	290	0.2	10	3	5	21,771	32,386	30	98	24
Egypt	1,677	2,061	X	32	1,114	708	40,018	31,471	11	1,091	3,245
Iran, Islamic Rep	2	187	X	3	(153)	31	6,009	16,801	30	27	227
Iraq	42	336	X	16	5	0	X	X	X	109	13
Israel	1,722	1,248	1.2	218	156	2,115	X	X	X	1,138	2,893
Jordan	561	506	3.4	85	29	17	5,080	8,138	12	544	721
Kuwait	4	4	X	3	0	124	X	X	X	88	135
Lebanon	86	221	0.9	72	6	88	895	3,999	9	X	808
Libyan Arab Jamahiriya	8	9	X	X	(59)	95	X	X	X	2	6
Morocco	521	537	0.6	20	27	600	18,011	21,219	29	765	1,248
Oman	59	47	X	21	112	68	2,711	3,399	8	49	100
Saudi Arabia	27	22	0.0	1	234	(1,503)	X	X	X	2,326	1,313
Syrian Arab Rep	815	262	X	18	36	90	13,093	21,201	6	228	1,265
Tunisia	217	131	0.3	14	88	273	5,881	11,234	16	570	1,464
Turkey	286	183	0.0	3	113	804	33,297	82,269	23	1,473	5,973
United Arab Emirates	51	7	X	3	X	X	X	X	X	X	X
Yemen	457	267	X	17	3	(139)	3,935	5,478	3	64	48

Data Table E1.2 continued

	Average Annual Official Development Assistance (ODA) and Official Aid (OA) (million US\$) (a)		ODA and OA as a Percentage of Gross Domestic Product (GDP) (b)	ODA and OA Per Capita (US\$) (a)	Direct Foreign Investment (million US\$)		Total External Debt (million US\$)		Debt Service as a Percentage of Total Exports	International Tourism Receipts (million US\$)	
	1985-87	1995-97			1985-87	1995-97	1985-87	1995-97		1985-87	1995-97
	X	X			X	X	X	X		X	X
SUB-SAHARAN AFRICA	X	X	X	X	X	X	X	X	X	1,676	5,338
Angola	133	466	2.3	41	210	300	4,035	10,739	14	X	9
Benin	125	267	3.8	49	0	2	1,012	1,611	8	30	28
Botswana	120	99	0.9	66	79	87	438	626	4	38	174
Burkina Faso	256	428	4.3	40	1	0	659	1,286	11	6	32
Burundi	178	204	4.9	33	1	1	598	1,117	37	1	1
Cameroon	192	453	1.8	33	116	29	4,003	9,394	21	39	38
Central African Rep	142	144	X	43	8	5	474	921	7	5	5
Chad	183	257	3.9	37	30	15	275	975	10	6	10
Congo	99	274	X	104	26	7	3,625	5,439	14	6	5
Congo, Dem Rep	469	177	X	4	7	1	7,373	12,799	2	13	4
Côte d'Ivoire	178	875	X	63	62	248	11,562	18,010	26	49	78
Equatorial Guinea	34	30	X	73	0	174	162	286	0	X	2
Eritrea	X	145	5.0	44	X	0	X	52	0	X	67
Ethiopia	784	793	2.8	14	(1)	0	6,234	10,155	24	10	30
Gabon	77	104	1.2	94	72	(93)	1,923	4,318	13	9	7
Gambia	86	43	X	37	1	10	281	437	13	19	22
Ghana	320	602	2.1	33	5	119	2,779	5,992	27	28	249
Guinea	174	365	2.9	50	7	9	1,767	3,334	20	X	4
Guinea-Bissau	82	143	X	128	1	1	390	918	41	X	X
Kenya	482	602	1.8	22	31	22	4,841	6,922	26	302	440
Lesotho	96	105	3.2	53	4	27	211	669	6	8	19
Liberia	90	143	X	64	2	18	1,461	2,091	X	X	X
Madagascar	290	502	3.9	35	6	11	3,073	4,191	15	7	64
Malawi	195	429	6.3	43	0	1	1,182	2,253	19	7	7
Mali	377	502	7.0	49	(4)	17	1,749	2,970	14	31	19
Mauritania	236	252	6.2	105	4	5	1,740	2,405	23	9	11
Mozambique	571	996	8.9	56	3	36	3,496	5,833	26	X	X
Namibia	13	182	2.3	115	0	153	X	X	X	X	214
Niger	337	292	3.6	31	17	1	1,411	1,567	18	7	17
Nigeria	54	202	0.2	2	416	1,404	23,292	31,318	12	86	75
Rwanda	212	659	14.1	118	17	1	474	1,061	18	7	1
Senegal	512	560	3.9	66	(9)	36	3,275	3,725	16	110	147
Sierra Leone	79	178	7.9	41	(44)	3	870	1,169	43	10	9
Somalia	486	129	X	15	22	0	1,816	2,628	X	X	X
South Africa	X	418	0.1	11	X	1,159	X	25,543	11	476	1,962
Sudan	1,000	219	0.5	8	(1)	0	9,945	16,967	9	32	8
Tanzania, United Rep	698	913	5.4	30	2	143	6,506	7,345	17	20	313
Togo	137	161	2.6	39	10	0	1,078	1,427	7	31	13
Uganda	226	787	3.6	40	(1)	141	1,522	3,652	21	3	94
Zambia	403	1,089	12.5	130	51	65	5,655	6,933	76	7	57
Zimbabwe	261	398	1.5	36	(7)	58	2,631	5,006	22	29	208
NORTH AMERICA	X	X	X	X	X	X	X	X	X	24,467	78,050
Canada	(1,737)	(1,969)	(0.3)	(66)	4,107	7,722	X	X	X	3,897	8,597
United States	(9,361)	(7,874)	(0.1)	(29)	37,955	76,241	X	X	X	20,570	69,453
C. AMERICA & CARIBBEAN	X	X	X	X	X	X	X	X	X	8,633	20,145
Belize	23	18	1.9	84	5	18	126	311	11	33	85
Costa Rica	237	11	0.0	3	70	293	4,566	3,612	14	129	700
Cuba	750	67	X	6	0	11	X	X	X	137	1,182
Dominican Rep	152	103	X	13	58	401	3,704	4,339	6	453	1,841
El Salvador	376	310	1.9	54	18	15	1,900	2,935	9	42	51
Guatemala	153	246	0.6	24	94	81	2,768	3,838	11	82	295
Haiti	181	480	5.1	62	5	5	757	920	26	72	81
Honduras	272	363	0.2	62	32	87	3,002	4,600	26	26	105
Jamaica	171	79	0.9	32	13	218	4,349	4,052	17	506	1,097
Mexico	184	262	0.0	3	1,753	10,396	102,400	158,106	32	3,130	6,902
Nicaragua	279	681	X	150	0	113	6,803	7,323	32	8	61
Panama	54	90	X	34	18	482	5,083	6,227	10	200	342
Trinidad and Tobago	20	25	0.3	20	7	320	1,724	2,380	17	91	96
SOUTH AMERICA	X	X	X	X	X	X	X	X	X	4,304	12,494
Argentina	75	241	0.1	7	491	5,506	53,951	107,439	46	1,119	4,649
Bolivia	280	768	3.6	101	19	483	5,405	5,243	31	37	162
Brazil	197	421	0.0	3	964	11,904	110,816	177,392	45	1,507	2,389
Chile	18	167	0.1	12	153	4,373	21,006	28,135	26	163	962
Colombia	68	252	0.1	6	672	3,858	15,544	28,575	30	306	908
Ecuador	171	227	0.4	19	69	498	9,504	14,469	27	157	275
Guyana	28	168	6.7	201	1	82	1,623	1,782	17	20	41
Paraguay	66	124	0.7	25	2	218	2,142	2,151	5	125	874
Peru	295	443	0.4	18	18	2,419	15,082	30,229	27	202	581
Suriname	16	88	X	215	(31)	(6)	X	X	X	9	18
Uruguay	16	64	0.2	20	29	151	4,041	5,958	18	234	696
Venezuela	15	40	0.0	2	35	2,752	34,748	35,577	23	425	940
OCEANIA	X	X	X	X	X	X	X	X	X	2,525	13,799
Australia	(709)	(1,110)	(0.3)	(61)	4,221	9,183	X	X	X	1,489	8,503
Fiji	38	45	1.4	58	14	30	451	227	4	144	297
New Zealand	(72)	(133)	(0.2)	(36)	1,254	2,016	X	X	X	657	2,368
Papua New Guinea	278	369	X	84	89	255	2,124	2,380	16	16	67
Solomon Islands	36	44	4.7	113	5	20	80	146	3	5	11
LOW INCOME (i)	19,150	25,007	X	13	1,304	9,070	216,402	400,398	19	2,607	6,143
MIDDLE INCOME (i)	18,356	30,189	X	11	9,521	120,361	889,428	1,708,726	16	25,547	107,526
HIGH INCOME (i)	2,607	2,257	X	3	77,357	209,923	52,318	130,048	X	112,335	313,388

Notes: Zero is either 0 or less than one-half the unit of measure. a. ODA and OA flows to recipients are shown as positive numbers; flows from donors are shown as negative numbers (in parentheses). b. GDP figures are calculated using purchasing power parity. c. Data are from 1995-96. d. Data are from 1996-97. e. Data are from 1986-87. f. Data before 1993 refer to the former Socialist Federal Republic of Yugoslavia. g. Data are from 1985-86. h. Data for Ethiopia before 1993 include Eritrea. i. As defined by the World Bank (World Development Indicators 1999). j. Data represent only the Republic of Korea.

Sources: Organisation for Economic Co-Operation and Development and World Bank

	Income Distribution							Population in Poverty						
	Survey Year	Gini Coefficient (a)	Percentage of Income in Each Quintile of Population					International Poverty Line (<1 Int\$/day) (b)		National Poverty (percent)				
			Lowest	20-40	40-60	60-80	Highest	Year(s)	(percent)	Year(s)	National	Rural	Urban	
WORLD	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ASIA (EXCL. MIDDLE EAST)	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Armenia	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Azerbaijan	X	X	X	X	X	X	X	X	X	X	1995	68.1	X	X
Bangladesh	1992	c	28	9.4	13.5	17.2	22.0	37.9	X	X	1995-96	35.6	39.8	14.3
Bhutan	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Cambodia	X	X	X	X	X	X	X	X	X	X	1997	36.1	40.1	21.1
China	1995	d	42	5.5	9.8	14.9	22.3	47.5	1995	22.2	1996	6.0	7.9	<2.0 e
Georgia	X	X	X	X	X	X	X	X	X	X	X	X	X	X
India	1994	c	30	9.2	13.0	16.8	21.7	39.3	1994	47.0	1994	35.0	36.7	30.5
Indonesia	1996	d	37	8.0	11.3	15.1	20.8	44.9	1996	7.7	1990	15.1	14.3	16.8
Japan	X	X	X	X	X	X	X	X	1992	0.2 f	1992	6.9	X	X f
Kazakhstan	1993	d	33	7.5	12.3	16.9	22.9	40.4	X	X	1996	34.6	39.0	3.0
Korea, Dem People's Rep	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Korea, Rep	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Kyrgyzstan	1993	d	35	6.7	11.5	16.4	23.1	42.3	1993	18.9	1993	40.0	48.1	28.7
Lao People's Dem Rep	1992	c	30	9.6	12.9	16.3	21.0	40.2	X	X	1993	46.1	53.0	24.0
Malaysia	1989	d	48	4.6	8.3	13.0	20.4	53.7	1995	4.3	1989	15.5	X	X
Mongolia	1995	c	33	7.3	12.2	16.6	23.0	40.9	X	X	1995	36.3	33.1	38.5
Myanmar	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Nepal	1995-96	c	37	7.6	11.5	15.1	21.0	44.8	1995	50.3	1995-96	42.0	44.0	23.0
Pakistan	1996	c	31	9.4	13.0	16.0	20.3	41.2	1991	11.6	1991	34.0	36.9	28.0
Philippines	1994	c	43	5.9	9.6	13.9	21.1	49.6	1994	26.9	1997	37.5	51.2	22.5
Singapore	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Sri Lanka	1990	c	30	8.9	13.1	16.9	21.7	39.3	1990	4.0	1991	22.4	24.4	18.3
Tajikistan	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Thailand	1992	c	46	5.6	8.7	13.0	20.0	52.7	1992	<2.0 e	1992	13.1	15.5	10.2
Turkmenistan	1993	d	36	6.7	11.4	16.3	22.8	42.8	1993	4.9	X	X	X	X
Uzbekistan	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Viet Nam	1993	c	36	7.8	11.4	15.4	21.4	44.0	X	X	1993	50.9	57.2	25.9
EUROPE	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Albania	X	X	X	X	X	X	X	X	X	X	1996	X	X	19.6
Austria	1987	d	23	10.4	14.8	18.5	22.9	33.3	X	X	X	X	X	X
Belarus	1995	d	29	8.5	13.5	17.7	23.1	37.2	1993	<2.0 e	1995	22.5	X	X
Belgium	1992	d	25	9.5	14.6	18.4	23.0	34.5	1992	0.9 f	1992	2.6	X	X e
Bosnia and Herzegovina	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Bulgaria	1992	d	31	8.3	13.0	17.0	22.3	39.3	1992	2.6	X	X	X	X
Croatia	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Czech Rep	1993	d	27	10.5	13.9	16.9	21.3	37.4	1993	3.1 f	X	X	X	X
Denmark	1992	d	25	9.6	14.9	18.3	22.7	34.5	1992	0.9 f	1992	4.1	X	X e
Estonia	1995	d	35	6.2	12.0	17.0	23.1	41.8	1993	6.0	1994	8.9	14.7	6.8
Finland	1991	d	26	10.0	14.2	17.6	22.3	35.8	1991	0.1 f	1991	2.8	X	X e
France	1989	d	33	7.2	12.7	17.1	22.8	40.1	1984	0.8 f	1984	4.3	X	X e
Germany	1989	d	28	9.0	13.5	17.5	22.9	37.1	1989	0.7 f	1989	5.2	X	X e
Greece	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Hungary	1993	d	28	9.7	13.9	16.9	21.4	38.1	1993	0.7	1993	25.3	X	X
Iceland	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ireland	1987	d	36	6.7	11.6	16.4	22.4	42.9	1987	1.4 f	1987	4.4	X	X e
Italy	1991	d	31	7.6	12.9	17.3	23.2	38.9	X	X	1991	2.7	X	X e
Latvia	1995	d	29	8.3	13.8	18.0	22.9	37.0	1993	<2.0 e	X	X	X	X
Lithuania	1993	d	34	8.1	12.3	16.2	21.3	42.1	1993	<2.0 e	X	X	X	X
Macedonia, FYR	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Moldova, Rep	1992	d	34	6.9	11.9	16.7	23.1	41.5	1992	6.8	X	X	X	X
Netherlands	1991	d	32	8.0	13.0	16.7	22.5	39.9	1991	1.9 f	1991	4.3	X	X e
Norway	1991	d	25	10.0	14.3	17.9	22.4	35.3	1991	0.4 f	1991	2.4	X	X e
Poland	1992	c	27	9.3	13.8	17.7	22.6	36.6	1993	6.8	1993	23.8	X	X
Portugal	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Romania	1994	d	28	8.9	13.6	17.6	22.6	37.3	1992	17.7	1994	21.5	28.0	15.6
Russian Federation	1996	c	48	4.2	8.8	13.6	20.7	52.8	1993	<2.0 e	1994	30.9	X	X
Slovakia	1992	d	20	11.9	15.8	18.8	22.2	31.4	1992	12.8	X	X	X	X
Slovenia	1993	d	29	9.3	13.3	16.9	21.9	38.6	1993	<2.0 e	X	X	X	X
Spain	1990	d	33	7.5	12.6	17.0	22.6	40.3	1990	0.5 f	1990	5.5	X	X e
Sweden	1992	d	25	9.6	14.5	18.1	23.2	34.5	1992	0.3 f	1992	4.2	X	X e
Switzerland	1982	d	36	7.4	11.6	15.6	21.9	43.5	X	X	X	X	X	X
Ukraine	1995	d	47	4.3	9.0	13.8	20.8	52.2	1992	<2.0 e	1995	31.7	X	X
United Kingdom	1986	d	33	7.1	12.8	17.2	23.1	39.8	1991	0.5 f	1991	6.7	X	X e
Yugoslavia	X	X	X	X	X	X	X	X	X	X	X	X	X	X
MIDDLE EAST & N. AFRICA	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Afghanistan	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Algeria	1995	c	35	7.0	11.6	16.1	22.7	42.6	1995	<2.0 e	1995	22.6	30.3	14.7
Egypt	1991	c	32	8.7	12.5	16.3	21.4	41.1	1990-91	7.6	X	X	X	X
Iran, Islamic Rep	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Iraq	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Israel	1992	d	36	6.9	11.4	16.3	22.9	42.5	X	X	X	X	X	X
Jordan	1991	c	43	5.9	9.8	13.9	20.3	50.1	1992	2.5	1991	15.0	X	X
Kuwait	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Lebanon	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Libyan Arab Jamahiriya	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Morocco	1990-91	c	39	6.6	10.5	15.0	21.7	46.3	1990-91	<2.0 e	1990-91	13.1	18.0	7.6
Oman	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Saudi Arabia	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Syrian Arab Rep	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tunisia	1990	c	40	5.9	10.4	15.3	22.1	46.3	1990	3.9	1990	14.1	21.6	8.9
Turkey	X	X	X	X	X	X	X	X	X	X	X	X	X	X
United Arab Emirates	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Yemen	1992	c	40	6.1	10.9	15.3	21.6	46.1	X	X	1992	19.1	19.2	18.6

Data Table E1.3 continued

	Income Distribution								Population in Poverty							
	Survey Year	Gini Coefficient (a)	Percentage of Income in Each Quintile of Population						International Poverty Line (<1 Int\$/day) (b)		National Poverty (percent)					
			Lowest 0-20	20-40	40-60	60-80	Highest 80-100	Year(s)	(percent)	Year(s)	National	Rural	Urban			
SUB-SAHARAN AFRICA																
Angola	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Benin	X	X	X	X	X	X	X	X	X	X	1995	33.0	X	X	X	X
Botswana	X	X	X	X	X	X	X	X	X	1985-86	33.0	X	X	X	X	X
Burkina Faso	1994	c	48	5.5	8.7	12.0	18.7	55.0	X	X	X	X	X	X	X	X
Burundi	X	X	X	X	X	X	X	X	X	X	1990	36.2	X	X	X	X
Cameroon	X	X	X	X	X	X	X	X	X	X	1984	40.0	32.4	44.4	X	X
Central African Rep	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Chad	X	X	X	X	X	X	X	X	X	X	1995-96	64.0	67.0	63.0	X	X
Congo	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Congo, Dem Rep	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Côte d'Ivoire	1988	c	37	6.8	11.2	15.8	22.2	44.1	1988	17.7	X	X	X	X	X	X
Equatorial Guinea	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Eritrea	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Ethiopia	1995	c	40	7.1	10.9	14.5	19.8	47.7	1981-82	46.0	X	X	X	X	X	X
Gabon	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Gambia	1992	c	48	4.4	9.0	13.5	20.4	52.8	X	X	1992	64.0	X	X	X	X
Ghana	1997	c	33	8.4	12.2	15.8	21.9	41.7	X	X	1992	31.4	34.3	26.7	X	X
Guinea	1994	c	40	6.4	10.4	14.8	21.2	47.2	1991	26.3	X	X	X	X	X	X
Guinea-Bissau	1991	c	56	2.1	6.5	12.0	20.6	58.9	1991	88.2	1991	48.8	60.9	24.1	X	X
Kenya	1994	c	45	5.0	9.7	14.2	20.9	50.2	1992	50.2	1992	46.4	46.4	29.3	X	X
Lesotho	1986-87	c	56	2.8	6.5	11.2	19.4	60.1	1986-87	48.8	1993	49.2	53.9	27.8	X	X
Liberia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Madagascar	1993	c	46	5.1	9.4	13.3	20.1	52.1	1993	72.3	X	X	X	X	X	X
Malawi	X	X	X	X	X	X	X	X	X	X	1990-91	54.0	X	X	X	X
Mali	1994	c	51	4.6	8.0	11.9	19.3	56.2	X	X	X	X	X	X	X	X
Mauritania	1995	c	39	6.2	10.8	15.4	22.0	45.6	1988	31.4	1990	57.0	X	X	X	X
Mozambique	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Namibia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Niger	1995	c	51	2.6	7.1	13.9	23.1	53.3	1992	61.5	1989-93	63.0	66.0	52.0	X	X
Nigeria	1992-93	c	45	4.0	8.9	14.4	23.4	49.4	1992-93	31.1	1992-93	34.1	36.4	30.4	X	X
Rwanda	1983-85	c	29	9.7	13.2	16.5	21.6	39.1	1983-85	45.7	1993	51.2	X	X	X	X
Senegal	1991	c	54	3.1	7.4	12.1	19.5	57.9	1991-92	54.0	1991	33.4	40.4	16.4	X	X
Sierra Leone	1989	c	63	1.1	2.0	9.8	23.7	63.4	X	X	1989	68.0	76.0	53.0	X	X
Somalia	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
South Africa	1993-94	c	59	2.9	5.5	9.2	17.7	64.8	1993	23.7	X	X	X	X	X	X
Sudan	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Tanzania, United Rep	1993	c	38	6.8	11.0	15.1	21.6	45.5	X	X	1991	51.1	X	X	X	X
Togo	X	X	X	X	X	X	X	X	X	X	1987-89	32.3	X	X	X	X
Uganda	1992-93	c	39	6.6	10.9	15.2	21.3	46.1	1989-90	69.3	1993	55.0	X	X	X	X
Zambia	1996	c	50	4.2	8.2	12.8	20.1	54.8	1993	84.6	1993	86.0	X	X	X	X
Zimbabwe	1990	c	57	4.0	6.3	10.0	17.4	62.3	1990-91	41.0	1990-91	25.5	X	X	X	X
NORTH AMERICA																
Canada	1994	d	32	7.5	12.9	17.2	23.0	39.3	1991	0.3	f	1991	7.0	X	X	e
United States	1994	d	40	4.8	10.5	16.0	23.5	45.2	1994	1.4	f	1994	13.2	X	X	e
C. AMERICA & CARIBBEAN																
Belize	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Costa Rica	1996	d	47	4.0	8.8	13.7	21.7	51.8	1989	18.9	X	X	X	X	X	X
Cuba	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Dominican Rep	1989	d	51	4.2	7.9	12.5	19.7	55.7	1989	19.9	1992	20.6	29.8	10.9	X	X
El Salvador	1995	d	50	3.7	8.3	13.1	20.5	54.4	X	X	1992	48.3	55.7	43.1	X	X
Guatemala	1989	d	60	2.1	5.8	10.5	18.6	63.0	1989	53.3	X	X	X	X	X	X
Haiti	X	X	X	X	X	X	X	X	X	X	1987	65.0	X	X	X	X
Honduras	1996	d	54	3.4	7.1	11.7	19.7	58.0	1992	46.9	1992	50.0	46.0	56.0	X	X
Jamaica	1991	c	41	5.8	10.2	14.9	21.6	47.5	1993	4.3	1992	34.2	X	X	X	X
Mexico	1995	d	54	3.6	7.2	11.8	19.2	58.2	1992	14.9	1988	10.1	X	X	X	X
Nicaragua	1993	c	50	4.2	8.0	12.6	20.0	55.2	1993	43.8	1993	50.3	76.1	31.9	X	X
Panama	1995	d	57	2.3	6.2	11.3	19.8	60.4	1989	25.6	X	X	X	X	X	X
Trinidad and Tobago	X	X	X	X	X	X	X	X	X	X	1992	21.0	X	X	X	X
SOUTH AMERICA																
Argentina	X	X	X	X	X	X	X	X	X	X	1991	25.5	X	X	X	X
Bolivia	1990	d	42	5.6	9.7	14.5	22.0	48.2	X	X	X	X	X	X	X	X
Brazil	1995	d	60	2.5	5.7	9.9	17.7	64.2	1995	23.6	1990	17.4	32.6	13.1	X	X
Chile	1994	d	57	3.5	6.6	10.9	18.1	61.0	1992	15.0	1994	20.5	X	X	X	X
Colombia	1995	d	57	3.1	6.8	10.9	17.6	61.5	1991	7.4	1992	17.7	31.2	8.0	X	X
Ecuador	1994	c	47	5.4	8.9	13.2	19.9	52.6	1994	30.4	1994	35.0	47.0	25.0	X	X
Guyana	1993	c	40	6.3	10.7	15.0	21.2	46.9	X	X	X	X	X	X	X	X
Paraguay	1995	d	59	2.3	5.9	10.7	18.7	62.4	X	X	1991	21.8	28.5	19.7	X	X
Peru	1996	d	46	4.4	9.1	14.1	21.3	51.2	X	X	1997	49.0	64.7	40.4	X	X
Suriname	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Uruguay	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Venezuela	1995	d	47	4.3	8.8	13.8	21.3	51.8	1991	11.8	1989	31.3	X	X	X	X
OCEANIA																
Australia	1989	d	34	7.0	12.2	16.6	23.3	40.9	1989	0.8	f	1989	7.0	X	X	e
Fiji	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
New Zealand	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Papua New Guinea	1996	c	51	4.5	7.9	11.9	19.2	56.5	X	X	X	X	X	X	X	X
Solomon Islands	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Notes: a. Gini coefficients measure the inequality in income distribution within the population (0 = perfectly equal, 100 = perfectly unequal). b. Estimated using GDP based on purchasing power parity. c. Refers to expenditure shares by percentiles of population. Rankings are based on per capita expenditure. d. Refers to income shares by percentiles of population. Rankings are based on per capita income. e. As reported by the World Bank. f. Luxembourg Income Study estimates (national poverty is defined here as 40 percent of the national median income).

Sources: Luxembourg Income Study and World Bank

	Population (000) 2000	Land Area (000 ha) 1998	Natural Forest		Crop- land Area (000 ha) 1997	Scleractinia Coral Genera (a) (number)	Claimed Exclusive Economic Zone (000 km²) 2000	Marine Fish		Food Supply from Fish & Fishery Products		Under-5 Mortality Rate (per 000 live births) 1997	Gross Domestic Product (PPP) (million Int\$) 1997
			Extent (000 ha) 1995	Annual Average Percent Change 1990-95				Average Catch (metric tons) Total Catch 1995-97	Percent Change Since 1985-87	Per Capita (b) (kg per person) 1997	Fish Protein as a % of All Protein 1997		
SMALL NATIONS/ISLANDS													
Antigua and Barbuda	68	44	9	(0.4)	8	25	103	377	(82)	24	9	21	X
Aruba	103	19	X	X	2	X	X	162	(77)	9	X	X	X
Bahamas	307	1,001	158	(2.6)	10	24	369	1,510	(15)	20	7	21	X
Bahrain	617	69	0	0.0	5	29	X	6,861	16	14	4	22	9,665
Barbados	270	43	0	0.0	145	26	183	3,162	(20)	32	11	12	X
Bermuda	65	5	0	0.0	X	16	447	435	(41)	40	13	X	X
Brunei Darussalam	328	527	434	(0.7)	7	64	6	5,204	67	21	7	10	X
Cape Verde	428	403	6	(1.3)	41	6	742	9,231	19	25	11	73	1,201
Comoros	694	223	9	(4.9)	118	47	162	12,882	149	20	16	93	791
Cyprus	786	924	X	X	145	X	X	2,122	(8)	20	5	9	X
Djibouti	638	2,318	22	(0.4)	X	55	2	350	(12)	3	2	156	X
Dominica	71	75	46	0.2	15	25	25	843	42	27	8	20	319
Grenada	94	34	4	2.1	11	25	20	1,350	(39)	20	10	29	451
Kiribati	83	73	0	0.0	37	40	3,388	19,387	(21)	74	33	75	X
Luxembourg	431	259	X	X	X	X	X	X	X	X	X	7	12,524
Maldives	286	30	X	X	3	63	871	105,563	78	165 c	54	74	945
Malta	389	32	X	X	11	X	X	825	(42)	30	7	10	4,942
Marshall Islands	64	18	X	X	3	61	1,877	397	86	9	X	92	X
Mauritius	1,158	203	3	1.4	106	56	1,275	13,968	0	21	9	23	10,689
Micronesia, Fed States	543	70	X	X	X	68	2,906	9,199	163	40	20	24	X
Qatar	599	1,100	0	0.0	17	27	X	4,593	103	10	3	20	X
St. Lucia	154	61	5	(1.9)	17	25	11	1,222	46	18	7	29	837
St. Vincent & Grenadines	114	39	11	(0.4)	11	25	32	1,338	125	15	7	21	464
Samoa	180	283	127	(1.2)	122	55	110	3,636	13	63	23	52	619
Sao Tome & Principe	147	96	56	0.0	41	5	143	2,988	(6)	21	16	78	X
Seychelles	77	45	3	(1.9)	7	62	1,289	4,246	4	66	26	18	X
Swaziland	1,008	1,720	74	0.0	180	X	X	X	X	0	0	94	3,208
Tonga	99	72	0	0.0	48	45	845	2,563	(9)	32	14	23	X
Vanuatu	190	1,219	893	(0.8)	120	65	530	1,636	(23)	23	10	50	617
OVERSEAS TERRITORIES													
French Guiana	181	8,815	7,990	(0.0)	13	X	132	3,611	69	28	9	X	X
French Polynesia	235	366	0	0.0	28	44	4,553	10,148	344	64	20	14 d	X
Guadeloupe	456	169	80	(1.7)	25	25	116	9,243	15	28	11	11 d	X
Martinique	395	106	38	(1.1)	22	25	11	4,413	16	26	10	9 d	X
Netherlands Antilles	217	80	0	0.0	8	25	X	1,027	(3)	19	7	16 d	X
New Caledonia	214	1,828	689	(0.1)	13	65	1,348	1,833	11	24	8	16 d	X
Puerto Rico	3,869	887	272	(0.9)	78	25	188	2,128	89	1	1	14 d	X
Réunion	699	250	82	0.1	38	54	310	4,933	278	10	4	10 d	X
Virgin Islands, U.S.	93	34	0	0.0	X	25	X	793	6	10	44	X	X

Notes: Negative values are shown in parentheses. Zero is either 0 or less than one-half the unit of measure. a. "Scleractinia" corals are reef-forming corals (i.e., true or stony corals).

b. Per capita values are expressed on a live-weight-equivalent basis, which means that all parts of the fish, including bones, are taken into account when estimating consumption of fish and fishery products. c. This value is an overestimate. Fish consumption in the Maldives is estimated based on the resident and the present population (including tourists). d. Data are from the United Nations Population Division and refer to the period 1995-2000.

Sources: Various

REGIONAL GROUPINGS OF COUNTRIES AS LISTED BY VARIOUS ORGANIZATIONS

World Resources Institute - Regions

Food and Agricultural Organization of the United Nations - Developing, Developed

World Bank - High, Medium, Low Income

UNICEF - Industrialized, Developing and Least Developed, Other Regions

United Nations Population Division - Regions, Developing, Developed

World Resources Institute - Regions

ASIA (excluding the Middle East, does not include former U.S.S.R.)

Armenia
Azerbaijan
Bangladesh
Bhutan
Brunei Darussalam
Cambodia
China
Georgia
Hong Kong, P.R. China, SAR
India
Indonesia
Japan
Kazakhstan
Korea, Dem People's Rep
Korea, Rep
Kyrgyzstan
Lao People's Dem Rep
Macau
Malaysia
Maldives
Mongolia
Myanmar
Nepal
Pakistan
Philippines
Singapore
Sri Lanka
Taiwan, Province of China
Tajikistan
Thailand
Turkmenistan
Uzbekistan
Vietnam

EUROPE (does not include former U.S.S.R.)

Albania
Austria
Belarus
Belgium
Belgium/Luxembourg

Bosnia and Herzegovina
Bulgaria
Croatia
Czech Rep
Czechoslovakia (former)
Denmark
Estonia
Finland
France
German Dem Rep (former)
Germany
Germany, Fed Rep (former)
Greece
Hungary
Iceland
Ireland
Italy
Latvia
Lithuania
Luxembourg
Macedonia, FYR
Malta
Moldova, Rep
Netherlands
Norway
Poland
Portugal
Romania
Russian Federation
Slovakia
Slovenia
Spain
Sweden
Switzerland
Ukraine
United Kingdom
Yugoslavia
Yugoslavia (former)

MIDDLE EAST AND NORTH AFRICA

Afghanistan
Algeria
Bahrain
Cyprus
Egypt
Iran, Islamic Rep
Iraq
Israel
Jordan
Kuwait
Lebanon
Libyan Arab Jamahiriya
Morocco
Oman
Qatar
Saudi Arabia
Syrian Arab Rep
Tunisia
Turkey
United Arab Emirates
Yemen

SUB-SAHARAN AFRICA

Angola
Benin
Botswana
Burkina Faso
Burundi
Cameroon
Cape Verde
Central African Rep
Chad
Comoros
Congo
Congo, Dem Rep
Côte d'Ivoire
Djibouti
Equatorial Guinea
Eritrea
Ethiopia
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau

Kenya
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mauritius
Mozambique
Namibia
Niger
Nigeria
Reunion
Rwanda
Sao Tome and Principe
Senegal
Seychelles
Sierra Leone
Somalia
South Africa
Sudan
Swaziland
Tanzania
Togo
Uganda
Zambia
Zimbabwe

NORTH AMERICA

Canada
United States

CENTRAL AMERICA AND CARIBBEAN

Antigua and Barbuda
Aruba
Bahamas
Barbados
Belize
Bermuda
Costa Rica
Cuba
Dominica
Dominican Rep
El Salvador
Grenada

Guadeloupe
Guatemala
Haiti
Honduras
Jamaica
Martinique
Mexico
Netherlands Antilles
Nicaragua
Panama
Puerto Rico
St. Lucia
St. Vincent and Grenadines
Trinidad and Tobago
Virgin Islands, U.S.

SOUTH AMERICA

Argentina
Bolivia
Brazil
Chile
Colombia
Ecuador
French Guiana
Guyana
Paraguay
Peru
Suriname
Uruguay
Venezuela

OCEANIA

Australia
Fiji
French Polynesia
Kiribati
Marshall Islands
Micronesia, Fed States
New Caledonia
New Zealand
Papua New Guinea
Samoa
Solomon Islands
Tonga
Vanuatu

Food and Agricultural Organization of the United Nations - Developing and Developed Countries

Developing

Afghanistan
Algeria
Angola
Antigua and Barbuda
Argentina
Aruba
Bahamas
Bahrain
Bangladesh
Barbados
Belize
Benin
Bermuda
Bhutan
Bolivia
Botswana
Brazil
Brunei Darussalam
Burkina Faso
Burundi
Cambodia
Cameroon
Cape Verde
Central African Rep
Chad
Chile
China
Colombia
Comoros
Congo
Congo, Dem Rep
Costa Rica
Côte d'Ivoire
Cuba
Cyprus
Djibouti
Dominica
Dominican Rep
Ecuador
Egypt
El Salvador
Equatorial Guinea
Eritrea
Ethiopia
Fiji
French Guiana
French Polynesia
Gabon
Gambia
Ghana
Grenada
Guadeloupe

Guatemala
Guinea
Guinea-Bissau
Guyana
Haiti
Honduras
Hong Kong, China SAR
India
Indonesia
Iran, Islamic Rep
Iraq
Jamaica
Jordan
Kenya
Kiribati
Korea, Dem People's Rep
Korea, Rep
Kuwait
Lao People's Dem Rep
Lebanon
Lesotho
Liberia
Libyan Arab Jamahiriya
Macau
Madagascar
Malawi
Malaysia
Maldives
Mali
Marshall Islands
Martinique
Mauritania
Mauritius
Mexico
Micronesia, Fed States
Mongolia
Morocco
Mozambique
Myanmar
Namibia
Nepal
Netherlands Antilles
New Caledonia
Nicaragua
Niger
Nigeria
Oman
Pakistan
Panama
Papua New Guinea
Paraguay

Developed (includes former U.S.S.R.)

Albania
Armenia
Australia
Austria
Azerbaijan
Belarus
Belgium
Belgium/Luxembourg
Bosnia and Herzegovina
Bulgaria
Canada
Croatia
Czech Rep
Czechoslovakia (former)
Denmark
Estonia
Finland
France
Georgia
German Dem Rep (former)
Germany
Germany, Fed Rep (former)
Greece
Hungary
Iceland
Ireland
Israel
Italy

Japan
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Luxembourg
Macedonia, FYR
Malta
Moldova, Rep
Netherlands
New Zealand
Norway
Poland
Portugal
Romania
Russian Federation
Slovakia
Slovenia
South Africa
Spain
Sweden
Switzerland
Tajikistan
Turkmenistan
Ukraine
United Kingdom
United States
U.S.S.R. (former)
Uzbekistan
Yugoslavia
Yugoslavia (former)

The World Bank - High, Middle, and Low Income Countries

High Income

Andorra
Aruba
Australia
Austria
Bahamas, The
Belgium
Bermuda
Brunei
Canada
Cayman Islands
Channel Islands
Cyprus
Denmark
Faeroe Islands
Finland
France
French Guiana
French Polynesia
Germany
Greece
Greenland
Guam
Hong Kong, China
Iceland
Ireland
Israel
Italy
Japan
Korea, Rep.
Kuwait
Liechtenstein
Luxembourg
Macao
Martinique
Monaco
Netherlands
Netherlands Antilles
New Caledonia
New Zealand
Northern Mariana
Islands
Norway
Portugal
Qatar
Reunion
Singapore
Slovenia
Spain
Sweden
Switzerland
United Arab Emirates
United Kingdom
United States
Virgin Islands (U.S.)

Middle Income

Algeria
American Samoa
Antigua and Barbuda
Argentina
Bahrain
Barbados
Belarus
Belize
Bolivia
Botswana
Brazil
Bulgaria
Cape Verde
Chile
China
Colombia
Costa Rica
Croatia
Cuba
Czech Republic
Djibouti
Dominica
Dominican Republic
Ecuador
Egypt, Arab Rep.
El Salvador
Equatorial Guinea
Estonia
Fiji
Gabon
Georgia
Grenada
Guadeloupe
Guatemala
Guyana
Hungary
Indonesia
Iran, Islamic Rep.
Iraq
Isle of Man
Jamaica
Jordan
Kazakhstan
Kiribati
Korea, Dem. Rep.
Latvia
Lebanon
Libya
Lithuania
Macedonia, FYR
Malaysia
Maldives

Malta
Marshall Islands
Mauritius
Mayotte
Mexico
Micronesia, Fed. Sts.
Morocco
Namibia
Oman
Palau
Panama
Papua New Guinea
Paraguay
Peru
Philippines
Poland
Puerto Rico
Romania
Russian Federation
Samoa
Saudi Arabia
Seychelles
Slovak Republic
Solomon Islands
South Africa
Sri Lanka
St. Kitts and Nevis
St. Lucia
St. Vincent and the
Grenadines
Suriname
Swaziland
Syrian Arab Republic
Thailand
Tonga
Trinidad and Tobago
Tunisia
Turkey
Ukraine
Uruguay
Uzbekistan
Vanuatu
Venezuela
West Bank and Gaza
Yugoslavia, FYR

Low Income

Afghanistan
Albania
Angola
Armenia
Azerbaijan
Bangladesh
Benin
Bhutan
Bosnia and
Herzegovina
Burkina Faso
Burundi
Cambodia
Cameroon
Central African
Republic
Chad
Comoros
Congo, Dem. Rep.
Congo, Rep.
Côte d'Ivoire
Eritrea
Ethiopia
Gambia, The
Ghana
Guinea
Guinea-Bissau
Haiti
Honduras
India
Kenya
Kyrgyz Republic
Lao PDR
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Moldova
Mongolia
Mozambique
Myanmar
Nepal
Nicaragua
Niger
Nigeria
Pakistan
Rwanda
Sao Tome and Principe
Senegal
Sierra Leone

UNICEF**Industrialized
Countries**

Andorra
Australia
Austria
Belgium
Canada
Denmark
Finland
France
Germany
Greece
Holy See
Iceland
Ireland
Israel
Italy
Japan
Liechtenstein
Luxembourg
Malta
Monaco
Netherlands
New Zealand
Norway
Portugal
San Marino
Slovenia
Spain
Sweden
Switzerland
United Kingdom
United States

Developing Countries

Afghanistan
Algeria
Angola
Antigua and Barbuda
Argentina
Armenia
Azerbaijan
Bahamas
Bahrain
Bangladesh
Barbados
Belize
Benin
Bhutan
Bolivia
Botswana
Brazil
Brunei Darussalam
Burkina Faso
Burundi
Cambodia
Cameroon
Cape Verde
Central African Rep
Chad
Chile
China
Colombia
Comoros
Congo
Congo, Dem Rep
Cook Islands
Costa Rica
Côte d'Ivoire
Cuba
Cyprus
Djibouti
Dominica
Dominican Rep
Ecuador
Egypt
El Salvador
Equatorial Guinea
Eritrea
Ethiopia
Fiji
Gabon
Gambia
Georgia
Ghana
Grenada
Guatemala

Guinea
Guinea-Bissau
Guyana
Haiti
Honduras
India
Indonesia
Iran
Iraq
Israel
Jamaica
Jordan
Kazakhstan
Kenya
Kiribati
Korea, Dem People's Rep
Korea, Rep of
Kuwait
Kyrgyzstan
Lao People's Dem Rep
Lebanon
Lesotho
Liberia
Libya
Madagascar
Malawi
Malaysia
Maldives
Mali
Marshall Islands
Mauritania
Mauritius
Mexico
Micronesia, Fed States of
Mongolia
Morocco
Mozambique
Myanmar
Namibia
Nauru
Nepal
Nicaragua
Niger
Nigeria
Niue
Oman
Pakistan
Palau
Panama
Papua New Guinea

Paraguay
Peru
Philippines
Qatar
Rwanda
Saint Kitts and Nevis
Saint Lucia
Saint Vincent/
Grenadines
Samoa
Sao Tome & Principe
Saudi Arabia
Senegal
Seychelles
Sierra Leone
Singapore
Solomon Islands
Somalia
South Africa
Sri Lanka
Sudan
Suriname
Swaziland
Syria
Tajikistan
Tanzania
Thailand
Togo
Tonga
Trinidad and Tobago
Tunisia
Turkey
Turkmenistan
Tuvalu
Uganda
United Arab Emirates
Uruguay
Uzbekistan
Vanuatu
Venezuela
Viet Nam
Yemen
Zambia
Zimbabwe

**Least Developed
Countries**

Afghanistan
Angola
Bangladesh
Benin
Bhutan
Burkina Faso
Burundi
Cambodia
Cape Verde
Central African Republic
Chad
Comoros
Congo, Dem Rep
Djibouti
Equatorial Guinea
Eritrea
Ethiopia
Gambia
Guinea
Guinea-Bissau
Haiti
Kiribati
Lao People's Dem Rep
Lesotho
Liberia
Madagascar
Malawi
Maldives
Mali
Mauritania
Mozambique
Myanmar
Nepal
Niger
Rwanda
Samoa
Sao Tome and Principe
Sierra Leone
Solomon Islands
Somalia
Sudan
Tanzania
Togo
Tuvalu
Uganda
Vanuatu
Yemen
Zambia

UNICEF REGIONS

Sub-Saharan Africa

Angola
Benin
Botswana
Burkina Faso
Burundi
Cameroon
Cape Verde
Central African Rep
Chad
Comoros
Congo
Congo, Dem Rep
Côte d'Ivoire
Equatorial Guinea
Eritrea
Ethiopia
Gabon
Gambia
Ghana
Guinea
Guinea-Bissau
Kenya
Lesotho
Liberia
Madagascar
Malawi
Mali
Mauritania
Mauritius
Mozambique
Namibia
Niger
Nigeria
Rwanda
Sao Tome & Principe
Senegal
Seychelles
Sierra Leone
Somalia
South Africa
Swaziland
Tanzania
Togo
Uganda
Zambia
Zimbabwe

Middle East and North Africa

Algeria
Bahrain
Cyprus
Djibouti
Egypt
Iran
Iraq
Jordan
Kuwait
Lebanon
Libya
Morocco
Oman
Qatar
Saudi Arabia
Sudan
Syria
Tunisia
United Arab Emirates
Yemen

South Asia

Afghanistan
Bangladesh
Bhutan
India
Maldives
Nepal
Pakistan
Sri Lanka

East Asia and Pacific

Brunei Darussalam
Cambodia
China
Cook Islands
Fiji
Indonesia
Kiribati
Korea, Dem People's Rep
Korea, Rep of
Lao People's Dem Rep
Malaysia
Marshall Islands
Micronesia, Fed States of
Mongolia
Myanmar
Nauru

Niue
Palau
Papua New Guinea
Philippines
Samoa
Singapore
Solomon Islands
Thailand
Tonga
Tuvalu
Vanuatu
Viet Nam

Latin America and Caribbean

Antigua and Barbuda
Argentina
Bahamas
Barbados
Belize
Bolivia
Brazil
Chile
Colombia
Costa Rica
Cuba
Dominica
Dominican Rep
Ecuador
El Salvador
Grenada
Guatemala
Guyana
Haiti
Honduras
Jamaica
Mexico
Nicaragua
Panama
Paraguay
Peru
Saint Kitts and Nevis
Saint Lucia
Saint Vincent/
Grenadines
Suriname
Trinidad and Tobago
Uruguay
Venezuela

Central and Eastern Europe (CEE), the Commonwealth of Independent States (CIS), and the Baltic States

Albania
Armenia
Azerbaijan
Belarus
Bosnia and Herzegovina
Bulgaria
Croatia
Czech Rep
Estonia
Georgia
Hungary
Kazakhstan
Kyrgyzstan
Latvia
Lithuania
Moldova, Rep of
Poland
Romania
Russian Federation
Slovakia
Tajikistan
TFYR Macedonia
Turkey
Turkmenistan
Ukraine
Uzbekistan
Yugoslavia

UN POPULATION DIVISION

More developed regions comprise all regions of Europe and Northern America, Australia/New Zealand and Japan.

Less developed regions comprise all regions of Africa, Asia (excluding Japan), Latin America and the Caribbean, and the regions of Melanesia, Micronesia and Polynesia.

Least developed countries as defined by the United Nations General Assembly, as of 1998, include 48 countries, of which 33 are in Africa, 9 in Asia, 1 in Latin America and the Caribbean and 5 in Oceania: Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde, Central African Republic, Chad, Comoros, Dem. Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lao People's Dem. Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Myanmar, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Sierra Leone, Solomon Islands, Somalia, Sudan, Togo, Tuvalu, Uganda, United Rep. of Tanzania, Vanuatu, Yemen, Zambia. They are included in the less developed regions.

Data Table BI.1
National and International Protection of Natural Areas

Sources: National protection systems: Protected Areas Database of the World Conservation Monitoring Centre (WCMC), unpublished data (WCMC, Cambridge, U.K., May/August 1999). Biosphere reserves: United Nations Educational, Scientific, and Cultural Organization (UNESCO), Man and the Biosphere Programme, *List of Biosphere Reserves*, available online at: <http://www.unesco.org/mab/wnbr.htm>.

World heritage sites: UNESCO, World Heritage Committee, *List of World Heritage Sites*, available online at: <http://www.unesco.org/whc/nwhc/pages/sites/main.htm>. Wetlands of international importance: Ramsar Convention Bureau, *List of Wetlands of International Importance*, available online at: <http://ramsar.org/sitelist.pdf>.

Protected areas (IUCN management categories I-V) combine natural areas of at least 1,000 hectares in five of six World Conservation Union (IUCN) management categories. IUCN defines a 'protected area' as: "an area of land and/or sea especially dedicated to the protection and maintenance of biological diversity, and of natural and associated cultural resources, and managed through legal or other effective means." Definitions of IUCN management categories I-V follow:

Category Ia. Strict nature reserve: A protected area managed mainly for science; an area of land and/or sea possessing some outstanding or representative ecosystems, geological or physiological features and/or species, available primarily for scientific research and/or environmental monitoring.

Category Ib. Wilderness area: A protected area managed mainly for wilderness protection; a large area of unmodified or slightly modified land and/or sea retaining its natural character and influence, without permanent or significant habitation, which is protected and managed so as to preserve its natural condition.

Category II. National park: A protected area managed mainly for ecosystem protection and recreation; a natural area of land and/or sea designated to: a) protect the ecological integrity of one or more ecosystems for present and future generations; b) exclude exploitation or occupation inimical to the purposes of designation of the area; and c) provide a foundation for spiritual, scientific, educational, recreational, and visitor opportunities, all of which must be environmentally and culturally compatible.

Category III. Natural monument: A protected area managed mainly for conservation of specific natural features; an area containing one or more specific natural or natural/cultural features that is of outstanding or unique value because of its inherent rarity, representative or aesthetic qualities, or cultural significance.

Category IV. Habitat/species management area: A protected area managed mainly for conservation through man-

agement intervention; an area of land and/or sea subject to active intervention for management purposes so as to ensure the maintenance of habitats and/or to meet the requirements of specific species.

Category V. Protected landscape/seascape: A protected area managed mainly for landscape/seascape conservation and recreation; an area of land, with coast and sea as appropriate, where the interaction of people and nature over time has produced an area of distinct character with significant aesthetic, ecological, and/or cultural value, and often with high biological diversity. Safeguarding the integrity of this traditional interaction is vital to the protection, maintenance, and evolution of such an area.

IUCN has an additional management category, category VI, which includes areas "managed mainly for the sustainable use of natural ecosystems." These areas contain predominantly unmodified natural systems, managed to ensure longterm protection and maintenance of biological diversity, while also providing a sustainable flow of natural products and services to meet community needs. Areas classified under this category are not included in this table.

The world total excludes protected areas in Antarctica and Greenland. Greenland has two protected areas with a combined area of 98,250,000 hectares, and Antarctica has 55 areas, which occupy 302,800 hectares.

The extent of protected areas in some countries may include overlaps between different designations (e.g., in Venezuela some areas within different IUCN categories overlap, and, therefore, the area may be counted twice) or may include marine components (e.g., Australia, Ecuador), which may lead to some unexpectedly high figures for *percent of land area protected*.

Protected areas at least 100,000 hectares and at least 1 million hectares in size refer to all IUCN categories I-V protected areas that fall within these two size classifications. The number of sites does not account for agglomerations of protected areas that together might exceed 100,000 or 1 million hectares.

Marine protected areas include protected areas in any of the IUCN categories (I-VI) that are marine or have a marine component. IUCN defines a 'marine protected area' as: "any area of intertidal or subtidal terrain, together with its overlying water and associated flora and fauna, historical and cultural features, which has been reserved by law or other effective means to protect part or all of the enclosed environment." Marine protected areas (MPAs) include areas that are fully marine as well as areas that have only a small area of intertidal land. Many of these MPAs have large terrestrial areas. The extent of the marine portion of most protected

areas is rarely documented. The degree of protection varies from one country to another, and it may bear little relationship to the legal status of any site. The categories of *marine* and *littoral* are not exclusive. One protected area can be both littoral and marine, therefore adding numbers under these two different categories may produce a higher number than the total for MPAs. Littoral is defined as any site that is known to incorporate at least some intertidal area. Such sites can also include marine and/or terrestrial elements. All sites with mangrove and saltmarsh communities are recorded as littoral. Marine is defined as any site that is known to incorporate at least some subtidal area permanently submerged under the ocean. Such sites can also include littoral and terrestrial elements. All sites with coral reefs and seagrasses are recorded as marine.

Protected areas that are part of global agreements usually include sites that are listed under national protection systems. *Biosphere reserves* are representative of terrestrial and coastal/marine environments that have been internationally recognized under UNESCO's Man and the Biosphere Programme. They have been selected for their value to conservation and are intended to foster the scientific knowledge and skills necessary for improving the balance between people and nature, and for promoting sustainable development. Each reserve must contain a diverse, natural ecosystem large enough to be an effective conservation unit. Each biosphere reserve consists of a minimally disturbed core area for conservation and research, a buffer zone where traditional land uses, experimental ecosystem research, and ecosystem rehabilitation may be permitted, and a transition area that may expand over time when cooperation increases. Only the core area requires legal protection. Biosphere reserves are nominated by national governments and remain under the sovereign jurisdiction of the state where they are located. Reserves must meet a minimal set of criteria and adhere to a minimal set of conditions, set out in the Statutory Framework, before being admitted into the World Network of Biosphere Reserves. Several countries share biosphere reserves. These sites are counted only once in regional and world totals. The transition area, according to the Statutory Framework, does not have to be defined, therefore the area of the biosphere reserves presented in this table may not correspond exactly to the actual territory concerned.

World heritage sites represent areas of "outstanding universal value" for their natural features, their cultural value, or for both natural and cultural values. The table includes only

natural and mixed natural/cultural sites. Any party to the World Heritage Convention (adopted in 1972) may nominate sites. Natural sites contain "examples of a major stage of the Earth's evolutionary history; outstanding physical, biological, and geological processes; a unique or superlative natural phenomenon, formation, or feature; a habitat for a threatened species; or areas of value on scientific or aesthetic grounds, or from the point of view of conservation." Cultural sites contain "monuments, groups of buildings or sites of historical, aesthetic, archaeological, scientific, ethnological, or anthropological value." Parties to the Convention commit to the conservation of the listed sites. Several countries share world heritage sites. These sites, referred to as international heritage sites, are counted only once in continental and world totals, although they are tallied in each country that shares that site.

The Convention on Wetlands of International Importance Especially as Waterfowl Habitat (Ramsar, Iran, 1971) is an intergovernmental treaty for the conservation and sustainable use of wetlands. When a country becomes a party to the Convention, it agrees to designate at least one wetland for inclusion in the *List of Wetlands of International Importance* (the "Ramsar list") and to promote its conservation. Ramsar sites are wetlands with "international significance in terms of ecology, botany, zoology, limnology, or hydrology." Of the sites designated in 1976 by the former Soviet Union as Ramsar sites, three are now in the Russian Federation, four are in Ukraine, and one is in Estonia. Of the remaining five sites, which are listed by Ramsar as former Soviet Union sites, one is in Azerbaijan, two are in Kazakhstan, one is in Kyrgyzstan, and one is in Turkmenistan. The Ramsar Bureau is still waiting for confirmation from the members of the Commonwealth of Independent states of their status as parties to the Convention; therefore, in Data Table BI.1 these sites are included in Europe's total. Sites in Monaco and Liechtenstein are also included in Europe's total.

Some internationally protected areas simultaneously encompass areas protected under other systems (e.g., national parks or nature reserves) and other internationally recognized sites. For example, there are 54 biosphere reserves that are wholly or partially world heritage sites; 52 sites are inscribed as both Ramsar sites and biosphere reserves, and 20 sites are inscribed in both the Ramsar and the World Heritage lists. Listings of these common sites are available online at: <http://www.unesco.org/mab/BR-WH.htm>, http://ramsar.org/world_heritage.htm, and http://ramsar.org/mab_sites.htm.

Data Table BI.2

Globally Threatened Species: Mammals, Birds, and Reptiles

Sources: Total and endemic species of mammals, birds, and reptiles: World Conservation Monitoring Centre (WCMC) Species Database, unpublished data (WCMC, Cambridge, U.K., December 1999). Threatened species of mammals, birds, and reptiles: World Conservation Union (IUCN), *1996 IUCN Red List of Threatened Animals* (IUCN, Gland, Switzerland, 1996). Number of species per 10,000 square kilometers: calculated by the World Resources Institute using land area figures from the Food and Agriculture Organization of the United Nations (FAO), *FAOSTAT On-line Statistical Service* (FAO, Rome, 1999), available online at: <http://www.fao.org>. World total for number of known mammal species comes from D.E. Wilson, and D.M. Reeder (eds.), *Mammal Species of the World: A Taxonomic and Geographic Reference* (2nd Edition) (Smithsonian Institution Press, Washington, D.C., 1993). World total for number of known bird species comes from C.G. Sibley and B. L. Monroe, *Distribution and Taxonomy of Birds of the World* (Yale University Press, New Haven, 1993) and from C.G. Sibley and B. L. Monroe, *A Supplement to Distribution and Taxonomy of Birds of the World* (Yale University Press, New Haven, 1993). World total for number of known reptile species was estimated by WCMC based on the latest taxonomic references for each reptilian group. Currently there is no standard species checklist for reptiles.

The *total number of known species* may include introductions in some instances. Data on mammals exclude marine mammals except where otherwise indicated. Total bird species listed includes only birds that breed in that country, not those that migrate or winter there.

The number of *endemic species* refers to those species known to be found only within the country listed.

Figures are not necessarily comparable among countries because taxonomic concepts and the extent of knowledge vary from one country to another. For this reason, country totals of species and endemics may be underestimates. In general, numbers of mammals and birds are fairly well known, while reptiles have not been as well inventoried.

The number of *threatened species* listed for all countries includes full species that are Critically Endangered, Endangered, or Vulnerable, but excludes introduced species, species whose status is insufficiently known (categorized by IUCN as "data deficient" [DD]), those known to be extinct, and those for which status has not been assessed (categorized by IUCN as "not evaluated" [NE]). Threatened species data for animals presented in Data Tables BI.2 and BI.3 reflect estimates presented in the *1996 IUCN Red List of Threatened Animals*. BirdLife International compiles and maintains the bird species section of the *IUCN Red List*. Threatened species

data for birds are from *Birds to Watch 2* (Collar et al. BirdLife International, Cambridge, U.K., 1994). The number of threatened species of birds are listed for countries included within their breeding or wintering ranges. Threatened marine turtles are excluded from country totals.

The *1996 IUCN Red List of Threatened Animals* was the first time that all *known* mammal and bird species had been assessed. This was also the first time that the new IUCN threat categories and criteria were applied to assess the risk of extinction of species. A brief description of the new system follows. For more detailed information, please refer to the original source.

Definitions for IUCN threat categories:

Critically Endangered: "When a taxon is facing an extremely high risk of extinction in the wild in the immediate future as defined by any of the criteria A–E" (see below).

Endangered: "When a taxon is not Critically Endangered but is facing a very high risk of extinction in the wild in the near future as defined by any of the criteria A–E."

Vulnerable: "When a taxon is not Critically Endangered or Endangered but is facing a high risk of extinction in the wild in the medium-term future as defined by any of the criteria A–E."

For each threat category there are five criteria (A–E, see below) used to assess species status. This process provides a more rigorous approach from that used prior to revisions of the IUCN criteria. Species need to meet only one of the five criteria to be listed under that particular threat category. The five criteria are:

A–Declining population rate,

B–Small population and decline or fluctuation,

C–Small population size and decline rate,

D–Very small population/very restricted distribution, and

E–Quantitative analysis indicating the probability of extinction in the wild (e.g., Population Viability Analysis).

In addition, there are subcriteria that provide further information on the reasons to list a species, potential causes of threat, etc.

Number of species per 10,000 km² provides a relative estimate for comparing numbers of species among countries of differing size. Because the relationship between area and species number is nonlinear (i.e., as the area sampled increases, the number of new species located decreases), a species-area curve has been used to standardize these species numbers. The curve predicts how many species a country would have, given its current number of species, if it was a uniform 10,000 square kilometers in size. This number is calculated using the formula: $S = cA^z$, where S = the number of species, A = area, and c and z are

constants. The slope of the species-area curve is determined by the constant z , which is approximately 0.33 for large areas containing many habitats. This constant is based on data from previous studies of species-area relationships. In reality, the constant z would differ among regions and countries, because of differences in species' range size (which tend to be smaller in the tropics) and differences in varieties of habitats present. A

tropical country with a broad variety of habitats would be expected to have a steeper species-area curve than a temperate, homogenous country because one would predict a greater number of species per unit area. Species-area curves also are steeper for islands than for mainland countries. At present, there are insufficient regional data to estimate separate slopes for each country.

Data Table BI.3 Globally Threatened Species: Amphibians, Freshwater Fish, and Plants

Sources: Total and endemic species data: World Conservation Monitoring Centre (WCMC) Species Database, unpublished data (WCMC, Cambridge, U.K., December 1999). Threatened species of amphibians and freshwater fish: World Conservation Union (IUCN), *1996 IUCN Red List of Threatened Animals* (IUCN, Gland, Switzerland, 1996). Threatened species of plants and world total for plants: WCMC Species Database, unpublished data (WCMC, Cambridge, U.K., December 1999). These figures are generated from the dataset underlying the data published in K.S. Walter and H.J. Gillett (eds.), *1997 IUCN Red List of Threatened Plants* (IUCN, Gland, Switzerland and Cambridge, U.K., 1998) compiled by WCMC. Number of species per 10,000 square kilometers: calculated by the World Resources Institute using land area figures from the Food and Agriculture Organization of the United Nations (FAO), *FAO-STAT On-line Statistical Service* (FAO, Rome, 1999), available online at: <http://www.fao.org>. World total for number of known amphibian species comes from D.R. Frost (ed.), *Amphibian Species of the World: A Taxonomic and Geographical Reference* (Allan Press, Inc. and the Association of Systematic Collections, Lawrence, Kansas, 1985), and from W.E. Duellman, *Amphibian Species of the World: Additions and Corrections* (University of Kansas Museum of Natural History, Special Pub. No. 21, Lawrence, 1993). World total for number of known fish species comes from W.N. Eschmeyer, C.J. Ferraris, M. Dang Hoang, and D. Long, *Catalog of Fishes, Vols. 1-3* (California Academy of Sciences, San Francisco, 1998) available online at: <http://www.calacademy.org/research/ichthyology/catalog/index.html>.

The *total number of known species* may include introductions in some instances. *Higher plants* includes estimates for flowering plants, conifers and cycads, and ferns and fern-allies.

The number of *endemic species* refers to those species known to be found only within the country listed. The world total for the number of known freshwater fish species also includes marine species. Of this total, around 40–45 percent are estimated to be freshwater species. Most marine fish are excluded from country totals.

Figures are not necessarily comparable among countries because taxonomic concepts and the extent of knowledge vary from one country to another. For this reason, country totals of species and endemics may be underestimates.

The number of *threatened amphibian* and *freshwater fish species* listed for all countries follow the *1996 IUCN Red List of Threatened Animals* classification. For details, please refer to the Sources and Technical Notes for Data Table BI.2. Country totals for the threatened freshwater fish category may include some marine species. Even though marine species are poorly represented in the *IUCN Red List*, more than 100 marine fish species were assessed for threat; the remaining 14,000 species of known marine fish were not assessed. Similarly, for many regions of the world, most freshwater fish species have not been assessed. The *IUCN Red List* was the first time that the *Red List* criteria were applied to marine fish. These figures should, therefore, be taken as a preliminary assessment that needs further evaluation.

The number of *threatened species of higher plants* listed includes ferns and fern allies, conifers and cycads, and flowering plants that have been classified as threatened by IUCN following the pre-1994 categories, which have since been revised (see below). Threat categories for plant species, therefore, vary from those used to classify animals. The number of threatened species listed includes full species that are categorized by IUCN as being endangered, vulnerable, rare, or indeterminate. It excludes introduced species, species whose status is insufficiently known, those known to be extinct, those that are suspected to have recently become extinct, and those whose status has not been assessed. Threatened species data in this table reflect a subset of those estimates presented in the *1997 IUCN Red List of Threatened Plants*. This subset omits subspecies and includes only species that are recorded as occurring in one country. "Country" is used in a general sense; for example, figures are provided for overseas dependencies (e.g., Aruba). This subset of 25,971 records includes 83 percent of the 31,195 records published in the *1997 IUCN Red List*. It was the first published list of vascular plants recorded as globally threatened.

A brief description of the pre-1994 threat categories follows. For more detailed information, please refer to the original source.

IUCN classified threatened species of plants as “all full species categorized at the global level as Endangered, Vulnerable, Rare, or Indeterminate.” The definitions for these categories follow:

Endangered: “taxa in danger of extinction and whose survival is unlikely if the causal factors continue operating.” Included in this category are taxa that “may be extinct but have definitely been seen in the wild in the past 50 years.”

Vulnerable: “taxa believed to move likely into the ‘Endangered’ category in the near future if the causal factors continue operating.”

Rare: “taxa with small world populations that are not at present ‘Endangered’ or ‘Vulnerable’, but are at risk.”

Indeterminate: “taxa that are known to be ‘Endangered,’ ‘Vulnerable,’ or ‘Rare,’ but where there is not enough information to say which of the three categories is appropriate.”

The number of species per 10,000 km² provides a relative estimate for comparing numbers of species among countries of differing size. For details, refer to the Sources and Technical notes for Data Table BI.2.

Data Table BI.4 **Trade in Wildlife and Wildlife Products Reported by CITES**

Source: Trade data: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) annual report data, World Conservation Monitoring Centre (WCMC) CITES Trade Database, (WCMC, Cambridge, U.K., December 1999).

The international trade in wildlife and wildlife products, worth billions of dollars annually, causes serious declines in the numbers of many species of animals and plants. The degree to which species are being affected by the overexploitation for trade aroused such concern for the survival of species that CITES was drawn up in 1973 to protect wildlife against such overexploitation and to prevent international trade from threatening species with extinction. The Convention entered into force on July 1, 1975. It is one of the world’s largest conservation agreements in existence, with 151 member states as of February 2000.

CITES entered into force is the year the Convention entered into force in that particular country. Members of CITES agree to ban the commercial international trade in an agreed-upon list of endangered species and to monitor trade in species that might become endangered. Species are listed in appendixes to CITES on the basis of their degree of rarity and the threat posed by trade. International trade in species listed in the appendixes or products derived from the species requires export, import, and reexport permits or certificates.

A brief description of the appendixes and permit regulation follows.

1. The most endangered species are listed in Appendix I. This appendix includes “all species threatened with extinction which are or may be affected by trade.” International trade in these species is subject to particularly strict regulations and must be authorized by the corresponding National CITES Management and Scientific

Authorities. Trade permits for these species are only granted under exceptional circumstances.

2. Other species at serious risk are included in Appendix II. This appendix includes “all species which although not necessarily currently threatened with extinction may become so unless trade is subject to strict regulation.” Any international trade in Appendix II species requires export and import permits as well as reexport certificates, granted in accordance with conditions set forth in the Convention. Permits are granted by the National CITES Management and Scientific Authorities.
3. The species listed in Appendix III are “all species which any Party identifies as being subject to regulation within its jurisdiction for the purpose of preventing or restricting exploitation. The cooperation of other Parties, is therefore, needed.” Any international trade in Appendix III species requires an export permit, a certificate of origin, and sometimes a reexport certificate. Permits and certificates are granted by the National CITES Management and Scientific Authorities in accordance with conditions set forth in the Convention.

Additional information on conditions and trade regulations can be found online at: <http://www.cites.org/CITES/eng/text.shtml#II>.

Parties to the Convention are required to submit annual reports, including trade records, to the CITES Secretariat. These trade records are compiled by WCMC in the CITES Trade Database. *CITES reporting requirements met as of 1997* indicates the number of reports submitted by a country to the CITES Secretariat as a percentage of number of reports expected since it became a party to the Convention. Figures presented are for reports submitted for years up to 1997.

Countries that have ratified CITES after 1997, therefore, are marked with "X" under reporting requirements met.

Net trade in 1997 is the balance of imports minus exports. Exports are shown as a negative balance in parentheses. Figures are for trade reported in 1997. Data on net exports and net imports as reported by CITES correspond to legal international trade and are based on data from permits issued, not on actual items traded. Figures may be overestimates if not all permits are used that year. Some permits issued in one year are used at a later date; therefore, numbers of exports and imports may not match exactly for any given year. World totals show the total number of imports, since calculating the balance of trade for the world would have canceled most figures.

Species traded within national borders and illegal trade in wildlife and wildlife products are not reflected in these figures. Illegal trade in wildlife products is estimated to be in the billions of dollars annually. In addition, data on mortality of individuals during capture or collection, transit, or quarantine are also not reflected in these numbers.

Number of live primates includes all species of monkeys, apes, and prosimians listed under CITES that were traded live in 1997.

Number of live parrots includes all *Psittaciformes* species listed under CITES that were traded live in 1997.

Number of live tortoises includes all *Testudines* species listed under CITES that were traded live in 1997.

Number of live lizards includes individuals from the *Sauria* and *Rhynchocephalia* species listed under CITES that were traded live in 1997.

Number of live snakes includes individuals from all *Serpentes* species listed under CITES that were traded live in 1997.

Number of wild orchids includes individuals from all *Orchidaceae* species listed under CITES that were collected from the wild and traded in 1997.

Number of cat skins includes whole skins of all *Felidae* species listed under CITES that were traded in 1997.

Number of crocodile skins includes whole skins of all *Crocodylia* species listed under CITES that were traded in 1997.

Number of lizard skins includes whole skins of all *Sauria* and *Rhynchocephalia* species listed under CITES that were traded in 1997.

Number of snake skins includes whole skins of all *Serpentes* species listed under CITES that were traded in 1997.

Data Table FG.1
Forest Cover and Change, and Certified Forest Area

Sources: Data on natural forest extent for 1990: Food and Agriculture Organization of the United Nations (FAO), Forest Resources Division, unpublished data (FAO, Rome, 1997). Data for total forest and plantation extent for 1990: *Forest Resources Assessment 1990: Global Synthesis* (FAO, Rome, 1995). Data for total and natural forest extent for 1995: *State of the World's Forests 1999* (FAO, Rome, 1999). Data for extent of plantations in 1995: D. Pandey, *Tropical Forest Plantation Areas 1995* (Report to FAO project GCP/INT/628/UK, Draft, November 1997). Average annual percentage change was calculated by the World Resources Institute. Certified forests data are from *Forest Stewardship Council (FSC) On-line Data Service*, available online at: <http://www.fscoax.org> (FSC, Oaxaca, Mexico, February 2000).

Total forest consists of all forest area for temperate developed countries, and the sum of natural forest and plantation area categories for tropical and temperate developing countries. For developed countries, forest cover data was obtained from official sources in response to a questionnaire from the United Nations Economic Commission for Europe and the FAO liaison office in Geneva (UN-ECE/FAO). The countries surveyed include countries in Europe, North America, and the former Soviet Union, as well as Japan, Australia, and New Zealand. Forest areas in developed countries are defined as land where tree crowns cover 20 percent of the area, including: open forests, forest roads and fire breaks; temporarily cleared areas, young stands expected to achieve at least 20 percent crown cover upon maturity, etc. Forest areas in developed countries are not broken down into the subcategories of natural forests and plantations due to the difficulty in distinguishing the two in many countries.

FAO defines a *natural forest* in tropical and temperate developing countries as a forest composed primarily of indigenous (native) tree species. Natural forests include closed forest, where trees cover a high proportion of the ground and where grass does not form a continuous layer on the forest floor (e.g., broadleaved forests, coniferous forests, and bamboo forests), and open forest, which FAO defines as mixed forest/grasslands with at least 10 percent tree cover and a continuous grass layer on the forest floor. Natural forests in tropical and temperate developing countries encompass all stands except plantations and include stands that have been degraded to some degree by agriculture, fire, logging, and other factors. For all regions, trees are distinguished from shrubs on the basis of height. A mature tree has a single well-defined stem and is taller than 7 meters. A mature shrub is usually less than 7 meters tall.

Average annual percent change reflects the increase or decrease in forest cover between 1990 and 1995. It is shown as

a percentage of the exponential growth rate. If negative (in parentheses), these figures reflect net deforestation, which is defined as the clearing of forest lands for all forms of agricultural uses (shifting cultivation, permanent agriculture, and ranching) and for other land uses such as settlements, other infrastructure, and mining. In tropical countries, this entails clearing that reduces tree crown cover to less than 10 percent. It should be noted that deforestation, as defined here, does not reflect changes within the forest stand or site such as selective logging (unless the forest cover is permanently reduced to less than 10 percent). Such changes are termed "forest degradation" and they can substantially affect forests, forest soil, wildlife and its habitat, and the global carbon cycle. Thus, the effects from the reported deforestation figures may be less than the effects from the total deforestation that includes all types of forest alterations. Positive change figures reflect net afforestation within a country or region.

FAO's forest assessments produce consistent estimates on forest status for common reference years (1990 and 1995) and forest area change for the periods between these years. The estimates are made using a model to adjust baseline forest inventory data from each country to the common reference years. This model correlates the share of forest cover for each subnational unit to population density and growth, initial forest extent, and ecological zone. Existing forest inventory data at national and subnational levels are reviewed, adjusted to a common set of classifications and concepts, and combined in a database. To accomplish this, FAO uses a geographic information system to integrate statistical and map data. The reliability of these modeled estimates hinges partly on the quality of the primary data sources feeding into the model. The variation in quality, comprehensiveness, and timeliness of the forest information is tremendous, and acute information deficits as regards forest resources can easily be observed, particularly in developing countries. On average, the forest cover figures for most developing countries for the 1990 assessment were close to 10 years old. For the latest update (1995), forest inventory data additional to that available for the 1990 assessment was used for Bolivia, Brazil, Cambodia, Côte d'Ivoire, Guinea-Bissau, Mexico, Papua New Guinea, the Philippines, and Sierra Leone.

Although the deforestation model allowed standardization of country data to a common baseline, a number of additional factors may have contributed to discrepancies in forest area and change estimates for specific countries. Potential forest cover estimates for dry forests and the related adjustment function are of unknown reliability; in addition, for some

countries, socioeconomic factors such as livestock projects in Central America and resettlement schemes in Indonesia may have played a larger role in deforestation. FAO acknowledged these shortcomings implicitly and noted that country estimates are not intended to replace the original country information, which remain unique sources of reference.

Because of these shortcomings, readers are encouraged to refer to the original sources and the latest country inventories that use satellite data or extensive ground data for estimates of forest cover and deforestation.

FAO is currently finalizing the *Global Forest Resource Assessment 2000*, which is expected to be published in the year 2000. This assessment is expected to contain country profiles on its forest resources for every country as well as a new global overview and maps with forest cover and change. Readers are encouraged to check this new report, which will be available online at: <http://www.fao.org>.

Plantations refers to forest stands established artificially by afforestation and reforestation for industrial and nonindustrial usage. Reforestation does not include regeneration of old tree crops (through either natural regeneration or forest management), although some countries may report regeneration as reforestation. Many trees are also planted for nonindustrial uses, such as village wood lots. Nonindustrial plantations include those established for fuelwood production, soil protection, or other purposes. They do not include plantations of agroforestry crops, such as rubber and oil palm. Reforestation data often exclude this component. The data presented here reflect plantation survival rates as estimated by FAO. Plantation figures correspond to reported areas, that is, areas reported to be present either by government, industry, or some other outside source. Reported areas are usually "accumulated planted areas" and may be different from the actual plantation areas that exist on the ground. Plantation areas in developed countries, with a couple of exceptions, are not presented in this table because of the difficulty in distinguishing between natural forests and plantations in many countries.

The data for *plantations extent 1995* cover the areas of forest plantations of all species in 90 tropical and subtropical countries. Tropical countries are defined as those countries having more than 50 percent of their land area between the Tropic of Cancer and Tropic of Capricorn, whereas subtropical countries are those bordering the tropics.

The Forest Stewardship Council (FSC) is an international nonprofit organization founded in 1993 to support "environmentally appropriate, socially beneficial, and economically viable management of the world's forests." It is the only independent third-party certification body for forests and forest products. Membership in FSC consists of representatives from social and environmental groups, timber trade and forestry professionals, indigenous peoples' organizations, community forestry groups, and forest product certification organizations. FSC accredits certification organizations or

bodies, which then carry out the actual assessments of forest management.

FSC is introducing an international labeling scheme for forest products that will provide a credible guarantee that the product comes from a well-managed forest. According to FSC, "all forest products carrying their logo have been independently certified as coming from forests that meet the internationally recognized FSC Principles and Criteria of Forest Stewardship."

Certification can be granted only when the following FSC principles and criteria are met:

1. Forest management operations shall respect all applicable national laws and relevant international agreements signed by that country.
2. Long-term tenure and use rights to the land and forest resources are clearly defined, documented, and legally established.
3. The legal and customary rights of indigenous peoples to own, use, and manage their lands, territories, and resources are recognized and respected.
4. Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.
5. Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.
6. Forest management operations shall conserve biological diversity and its associated values as well as maintain the ecological functions and the integrity of the forest.
7. Forest management operations need to have a documented management plan with clearly stated goals and objectives.
8. Forest condition, yields, and management activities, as well as social and environmental impacts, must be monitored.
9. Management activities in high-conservation-value forests shall maintain or enhance the attributes that define such forests.
10. In addition to the principles stated above, plantations need to meet Principle 10 and its criteria, by which: Plantations should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.

Full certification of forest products involves an assessment of forest management at the site to ensure that management practices meet the criteria of resource sustainability and environmental service provision; it also involves a chain-of-custody certification, whereby the channels through which forest products travel, from certified forest to processor and distributors to the final consumer, are verified. Many compa-

nies that have certified forests also possess certified mills and are distributors of certified wood as well.

Certified *natural forests* are defined as areas where many of the principal characteristics and key elements of native ecosystems such as complexity, structure, and diversity are present, as defined by FSC-approved national and regional standards of forest management.

Certified *plantations* are areas lacking most of the principal characteristics and key elements of native ecosystems as defined by FSC-approved national and regional standards of forest stewardship, which result from the human activities of planting, sowing, or intensive silvicultural treatments. According to FSC, certified plantations should “decrease the

pressures on natural forests; have diversity in composition in species and age classes; include, where possible, native over exotic species; serve to improve soil function, fertility and structure; and have some proportion of their area managed for the restoration of natural forest cover.”

Certified forests labeled as *mixed forests* include areas with natural forests and plantations, areas with seminatural forests, and areas with mixed seminatural forests and plantations.

FSC is currently revising their classification into three forest categories: natural forests, plantations, and high-conservation-value forests. For more information, please refer to the original source.

Data Table FG.2

Forest Ecosystems and Threatened Tree Species

Sources: Land area: Food and Agriculture Organization of the United Nations (FAO), *FAOSTAT On-line Statistical Service*, available online at: <http://www.fao.org>. Closed forest data: D. Bryant, D. Nielsen, and L. Tangle, *The Last Frontier Forests: Ecosystems and Economies on the Edge* (World Resources Institute, Washington, D.C., 1997). Forest ecosystem data: S. Iremonger, C. Ravilious, and T. Quinton, “A statistical analysis of global forest conservation,” in S. Iremonger, C. Ravilious, and T. Quinton (eds.), *A Global Overview of Forest Conservation CD-ROM* (World Conservation Monitoring Centre [WCMC] and Centre for International Forestry Research [CIFOR], Cambridge, U.K., 1997). Threatened tree species data: Tree Conservation Database, WCMC. This database is used to generate *The World List of Threatened Trees*, compiled by WCMC, S. Oldfield, C. Lusty, and A. MacKinnon (eds.), World Conservation Press, 1998, available online at: http://www.wcmc.org.uk/trees/Background/country_stats.htm. *The World List of Threatened Trees* is a collaboration between individual scientists worldwide, expert opinions derived from three regional workshops, and many organizations—notably the WCMC and the Species Survival Commission of IUCN-The World Conservation Union (IUCN).

Original forest as a percent of land area refers to the estimate of the percentage of land that would have been covered by closed forest about 8,000 years ago assuming current climatic conditions, before large-scale disturbance by human society. This map of estimated forest cover was developed by WCMC based on numerous global and regional biogeographic maps. It overestimates where forests were in the northern boreal regions, particularly in Russia, because it considers tundra-forest transition zones as forest. The map of original forest cover is not a direct measure of forest cover; it depicts where forests might be expected to occur today in

absence of humans, based on climate, topography, and other variables. For further information, please refer to: C. Billington, V. Kapos, M. Edwards, S. Blyth, and S. Iremonger, *Estimated Original Forest Cover Map—A First Attempt* (WCMC, Cambridge, U.K., 1996).

Current forests refers to estimated closed forest cover within the last 10 years or so (this varies by country). Only closed moist forests are depicted for Africa and Asia. Woodlands and shrublands are not included. Current forest cover figures were produced from *The World Forest Map* (WCMC, Cambridge, U.K., 1996). This map was developed by WCMC in collaboration with the World Wildlife Fund and CIFOR for the WRI forest frontiers assessment; it is based on country and regional maps derived from national and international sources.

Frontier forests are large, relatively intact forest ecosystems. They represent undisturbed forest areas that are large enough to maintain all of their biodiversity, including viable populations of wide-ranging species associated with each forest type. A frontier forest must meet the following criteria:

- It is primarily forested.
- It is large enough to support viable populations of all species associated with that forest type, even in the face of natural disasters (e.g., hurricanes, etc.).
- Its structure and composition are determined mainly by natural events (e.g., fires, etc.), and it remains relatively unmanaged by humans, although limited human disturbance by traditional activities is acceptable.
- In forests where patches of trees of different ages occur naturally, the landscape shows this type of heterogeneity.
- It is dominated by indigenous tree species.
- It is home to most, if not all, other plants and animals that typically live in this type of forest.

Percent frontier forest threatened refers to those frontier forests where ongoing or planned human activities such as logging, mining, and other large-scale disturbances will eventually degrade the ecosystem through such effects as species decline or extinction, and drastic changes in the forest's age structure. If continued, these effects would result in the violation of one of the above mentioned criteria.

The data on extent and area protected by forest type under the *forest ecosystems* categories are for 1996. WCMC carried out this analysis by overlaying forest and protected areas coverages in a geographic information system (GIS). The forest GIS coverages were created by WCMC using many national and regional data such as land cover, forest, or vegetation maps. The legends of these maps were harmonized into 15 tropical and 11 nontropical forest types, defined specifically for this study. In general, WCMC assumed that the land cover categories shown in the source maps were correct and translated the legends directly to the 25 type classes for the world without attempting to assess the accuracy of the source data.

The WCMC publication does not include shrub-dominated lands but does include areas with sparse tree cover. *Sparse trees and parkland* are natural forests where the tree canopy cover is between 10 and 30 percent, such as in the savannah and steppe regions of the world. The forest type categories were split between "tropical" and "nontropical." *Tropical forests* included all forests located between the Tropic of Cancer and Tropic of Capricorn. All other forests were put into the *nontropical* categories. Montane forests within the tropics that were classified in the source maps as "temperate" were registered in the "tropical forests" categories in this study. Most of the plantation forests in the world were not recorded as such in the WCMC study and, therefore, are included in the categories describing natural

forests. For example, all forests in Europe are classified as "natural" forests.

Percent protected includes forest areas within the protected areas that are listed by IUCN as being within their management categories I-VI. Please refer to the original source or to the Sources and Technical Notes of Data Table BI.1 for a description of these management categories.

The *number of tree species threatened* listed for all countries includes full species that are categorized by IUCN as being Critically Endangered, Endangered, or Vulnerable. These categories correspond to the new IUCN threat definitions. For a description of these threat categories, please refer to the Sources and Technical Notes of Data Table BI.2. These figures present the results of the first survey of the conservation status of tree species worldwide, published in *The World List of Threatened Trees*. Figures are not necessarily comparable among countries because taxonomic concepts and the extent of knowledge vary. The world's tree flora is estimated to be around 100,000 species.

Some taxonomic groups of trees were not evaluated, such as tree ferns in the families *Cyatheaceae* and *Dicksoniaceae*, tree species in the cycad families *Cycadaceae* and *Zamiaceae*, and arborescent members of the *Cactaceae* family.

In addition to the threatened tree species listed in this data table, *The World List of Threatened Trees* has several appendixes that provide a list of:

1. 141 globally threatened Australian tree species,
2. 202 globally threatened Japanese tree species, and
3. 1,022 tree species classified as "threatened" under the 1997 IUCN Red List of Threatened Plants that were not evaluated using the new IUCN categories. For a description of the pre-1994 IUCN categories, please refer to the Sources and Technical Notes of Data Table BI.3.

Data Table FG.3 Wood Production and Trade

Sources: Wood production and wood import and export values: Food and Agriculture Organization of the United Nations (FAO), *FAOSTAT On-line Statistical Service* (FAO, Rome, 1999), available online at: <http://www.fao.org>. Total exports of goods and services data: World Bank, *World Development Indicators 1999*, on CD-ROM (Development Data Group, World Bank, Washington, D.C., 1999).

Total roundwood production refers to all wood in the rough, whether destined for industrial or fuelwood uses. All wood felled or harvested from forests and trees outside the forest, with or without bark, round, split, roughly squared, or in other forms, such as roots and stumps is included. All pro-

duction figures are national totals averaged over a 3-year period in thousands of cubic meters.

Wood fuel production covers all rough wood used for cooking, heating, and power production. Wood used in charcoal production, pit kilns, and portable ovens is included. FAO data include only wood from direct sources such as natural forests, plantations, and other wooded land, such as homesteads and roadsides. FAO data do not currently include wood fuel from indirect sources such as industrial by-products derived from primary and secondary wood industries, recovered sources (i.e., wood waste from construction sites demolition, packaging, etc.), and black liquor (derived from by-

products of the pulp industry). Statistics on wood fuel production are often lacking for many countries. FAO wood fuel estimates are partly based on household consumption surveys dating from the 1960s and per capita consumption estimates from the 1980s. Estimates are updated in line with population growth, therefore caution is recommended when using these figures.

Industrial roundwood production comprises all roundwood products other than fuelwood and charcoal. It includes sawlogs or veneer logs, posts, pitprops, pulpwood, and other roundwood industrial products.

Wood-based panels includes the following commodities: veneer sheets, plywood, particleboard, and compressed or noncompressed fiberboard. Starting from 1995, compressed fiberboard has been disaggregated into hardboard and medium-density fiberboard, and noncompressed fiberboard has been relabeled “insulating board.”

Wood production data are national totals averaged over a 3-year period in thousand cubic meters.

Paper and paperboard production includes newsprint, printing and writing paper, packaging paper, household and sanitary paper, and other paper and paperboard. Recovered paper is excluded. Figures are national totals averaged over a 3-year period in thousand metric tons.

Trade in forest products includes trade in industrial roundwood, wood fuel, sawnwood, wood-based panels, pulp, paper and paperboard, recovered paper, chips and particles, and wood residues. Import and export figures are national totals averaged over a 3-year period in millions of U.S. dollars. Imports are usually on a cost, insurance, and freight basis (i.e., insurance and freight costs are added in). Exports are generally on a free-on-board basis (i.e., not including insurance or freight costs). “In-transit” shipments are excluded wherever possible.

All wood production and trade data refer to both coniferous and nonconiferous species. FAO compiles forest products data from responses to annual questionnaires sent to national governments. Data from other sources, such as national statistical yearbooks, are also used. In some cases, FAO prepares its own estimates. FAO continually revises its data using new information; the latest figures are subject to revision.

Percent of total exports in 1997 is the export value of forest products as a percentage of all exports (i.e., all goods and other market services). The value of merchandise, freight, insurance, travel, and other nonfactor services is included. Factor and property income (formerly called factor services), such as investment income, interest, and labor income, is excluded.

For more information, please refer to the original source.

Data Table FG.4 **Livestock Populations, Grain Consumed as Feed, and Meat Production**

Sources: Livestock and meat production data: Food and Agriculture Organization of the United Nations (FAO), *FAO-STAT On-line Statistical Service* (FAO, Rome, 1999), available online at: <http://www.fao.org>. Feed data: Economic Research Service, U. S. Department of Agriculture (USDA), *Production, Supply, and Distribution View* (USDA, Washington, D.C., 1999). Data available online at: <http://usda.mannlib.cornell.edu/data-sets/international/93002/>.

Data on livestock include all animals in the country, regardless of the place or purpose of their breeding. Data are collected annually by FAO. The figures for an indicated year reflect data reported by countries for any day between October of the previous year and September of the year indicated. Estimates are made by FAO for countries that either do not report data or only partially report data.

Cattle figures include the common ox (*Bos taurus*), zebu, humped ox (*Bos indicus*), Asiatic ox (subgenus *Bibos*), and Tibetan yak (*Poephagus grunniens*). *Sheep* (*Ovis spp.*) figures include Uriel, Argali, Bighorn, Karakul, and Astrakhan. *Goat* (*Capra spp.*) figures include Hircus, Ibex, Nubiana, Pyrenaica, Tibetana, Kashmir, and Angora. *Equine* figures include horses (*Equus caballus*), asses (*Equus asinus*), and hybrids between horses and asses. *Buffalo* figures include Indian, Asi-

atic, pigmy, water buffalo (*Bubalus bubalus*, *B. arnee*, and *B. depressicornis*), African buffalo (*Syncerus spp.*), American bison (*Bison bison*), European bison (*B. bonasus*), and hybrids between bison and cattle. Wild bisons and buffaloes are excluded. *Camel* figures include the Bactrian camel (*Camelus bactrianus*) and Arabian camel (*C. dromedarius*).

Grains fed to livestock as percent of total grain consumption is calculated by dividing the total feed grain consumed by the total domestic grain consumed. Grains include wheat, rice (milled weight), corn, barley, sorghum, millet, rye, oats, and mixed grains. Grain consumption is the total domestic use during the local marketing year of the individual country. It is the sum of feed, food, seed, and industrial uses.

Meat production of beef and veal are from bovine animals, whether salted, in brine, dried, or smoked. *Meat production of sheep and goats* includes lambs and kids. These figures refer to fresh, chilled, and frozen meat, bone in or boneless.

FAO defines “meat” as the flesh of animals used for food. Meat production data normally include bone, but exclude meat that is unfit for human consumption. As reported by individual countries, these data may refer either to commercial production (meat entering marketing channels), inspected production (from animals slaughtered under sani-

tary inspection), or total production (the total of the above mentioned categories plus slaughter for personal consumption). Production figures relate to animals slaughtered

within national boundaries regardless of their origin, whether indigenous or foreign.

For more information, please refer to the original source.

Data Table FG.5

PAGE Ecosystems: Area, Population, Carbon Stocks, and Protected Areas

Sources: Landcover: Global Land Cover Characteristics Database Version 1.2 (T.R. Loveland, B.C. Reed, J.F. Brown, D.O. Ohlen, Z. Zhu, L. Yang, J. Merchant. 2000. "Development of Global Land Cover Characteristics Database and IGBP DIS-Cover from 1 km AVHRR data." *International Journal of Remote Sensing* 21 [6]:1303-1330). Available online at: <http://edcdaac.usgs.gov/glcc/glcc.html>. U.S. Geological Survey (USGS) Earth Resources Observation Systems (EROS) Data Center (USGS/EDC) 1-km Land Cover Characterization Database, Revisions for Latin America (USGS/EDC, Sioux Falls, SD, 1999). Country boundaries: Environmental Systems Research Institute (ESRI), *Digital Chart of the World CD-ROM* (ESRI, Redlands, CA, 1993). Urban area: National Oceanographic and Atmospheric Administration—National Geophysical Data Center (NOAA/NGDC) Stable Lights and Radiance Calibrated Lights of the World CD-ROM (NOAA/NGDC, Boulder, CO. View Nighttime Lights of the World database online at: <http://julus.ngdc.noaa.gov:8080/production/html/BIOMASS/night.html>. Population: Center for International Earth Science Information Network (CIESIN); Columbia University; International Food Policy Research Institute (IFPRI); and World Resources Institute (WRI) *Gridded Population of the World, Version 2 alpha*. (CIESIN, Columbia University, Palisades, NY, 2000). Available online at: <http://sedac.ciesin.org/plue/gpw>. Carbon stocks in vegetation: Based on a 1999 unpublished map by USGS/EDC that applied carbon density numbers from a previous study (J.S. Olson, J.A. Watts, and L.J. Allison, "Carbon in Live Vegetation of Major World Ecosystems" Report ORNL-5862 [Oak Ridge, Tennessee, Oak Ridge National Laboratory, 1983]) to a more recent global vegetation map (Global Land cover characteristics Database Versions 1.2 [Loveland, et al. 2000]). Carbon stocks in soils: N.H. Batjes. 1996. "Total Carbon and Nitrogen in the Soils of the World." *European Journal of Soil Science* 47:151-163 and N.H. Batjes and E.M. Bridges. 1994. "Potential Emissions of Radiatively Active Gases from Soil to Atmosphere with Special Reference to Methane: Development of a Global Database WISE" *Journal of Geophysical Research* 99 (D8):16479-16489. World Inventory of Soil Emission Potentials (WISE) data online at: <http://www.isric.nl/WISE.html>. Protected areas: Database of the World Conservation Monitoring Centre (WCMC), unpublished data (WCMC, Cambridge, U.K., May/August 1999).

This table provides summary statistics for ecosystems used in Chapter 2 of *World Resources 2000-2001*. All area estimates use a common global land cover characteristics database, which was initiated by the IGBP and produced by the USGS and the University of Nebraska-Lincoln. The land cover regions in the database based on interpretation of advanced very-high-resolution radiometer (AVHRR) satellite imagery consolidated into monthly global composites for the period April 1992 to March 1993.

The global land cover characteristics database identifies between approximately 130 and 260 seasonal land cover regions (SLCRs) per continent (e.g., 167 for South America and 205 for North America). Each SLCR represents an area with similar land cover associations and distinctive patterns of biomass production such as the onset, peak, and duration of greenness. As part of a broader global land cover characterization process, seven different thematic global maps, each with a separate land cover legend, were produced by aggregating these detailed SLCR map units. These seven maps have corresponding customized legends to make them useful for specific global applications such as environmental modeling, land management, and monitoring. Pilot Analysis of Global Ecosystems (PAGE) researchers worked directly from the SLCR units to delineate the extent of agricultural ecosystems. They used two of the seven global legends to delineate forest and grassland boundaries and to calculate carbon storage: 1) the IGBP legend, developed to assist global change investigations, and 2) the Olson legend, produced for carbon cycle studies.

IBGP land area is based on the IGBP legend, with the exception of grasslands. The 17 separate IGBP land cover classes were aggregated to four broad categories: grasslands, forests, agriculture, and other. *Grasslands* consist of areas classified as open shrubland, closed shrubland, woody savanna, savanna, and grassland under the IGBP legend. It also includes an additional land cover type, tundra, which is not explicitly defined in the IGBP legend. This class is defined here by the Olson legend and typically overlaps with the IGBP shrubland, barren, and snow/ice classes. *Forests* include the IGBP categories for evergreen needleleaf forest, evergreen broadleaf forest, deciduous needleleaf forest, deciduous broadleaf forest, and mixed forest. *Agriculture* aggregates the IGBP categories for cropland and cropland/

natural vegetation mosaic. *Other* includes the IGBP categories for wetlands, snow/ice, urban areas, and barren land.

While the IGBP legend includes a specific category that depicts urban areas, summarized under the category “other” in the table, the data used to delineate urban areas (*Digital Chart of the World*) are out-of-date and underestimate urban extent. Thus, PAGE researchers used a different data set to delineate *urban area*. It is based on the Nighttime Lights of the World database, a 1-kilometer resolution map derived from nighttime imagery from the Defense Meteorological Satellite Program (DMSP) Operational Linescan System (OLS) of the United States. The data set contains the location of stable lights, including frequently observed light sources such as fires and lightning. The extent of “lit” area may be slightly overestimated due to the sensor’s resolution and factors such as reflection from water and other surface features. It is a good indicator of the spatial distribution of settlements and infrastructure, but should not be interpreted as a measure of population density. The mean settlement size required to produce enough light to be detected is much greater in developing countries than in industrialized countries because of differences in energy consumption. The urban area estimates result from an overlay of IGBP land area, as defined in the first column of this table, with the Nighttime Lights of the World database. Area estimates are summarized by grasslands, forests, agriculture, and other, and are used to define PAGE extent.

Agricultural mosaic area represents the area of the 30–40 percent agriculture class within the IGBP grassland and forest extent as defined by the PAGE area for agriculture (see definition below). It provides an indication of the overlap between IGBP forest and grassland area and the PAGE area for agriculture.

Boundaries for *PAGE area* are defined independently using different legends for grassland, forest, and agriculture.

PAGE area for grassland and forest uses the IGBP and Olson legends. The extent for PAGE grassland and forest were calculated by subtracting a map of urban area, as defined in the second column of this table, from a map of IGBP grassland and forest extent, as defined in the first column of this table.

PAGE area for agriculture is based directly on the SLCR map units. The classification system used in the original SLCR map units allows for opportunities to improve the data interpretation for agricultural purposes, and improve upon the thematic maps generally presented at a global level that use the IGBP and Olson legends. These global land cover interpretations do not explicitly recognize all occurrences of agriculture occupying a less than dominant share (60 percent) of a SLCR class.

In consultation with the USGS/EDC, the potential agricultural content of all 961 SLCRs defined globally was

reassessed. For example, an area interpreted as containing more than 60 percent forest and classified as “deciduous broad-leaf forest” cover using the IGBP classification scheme might, upon closer inspection of its naming convention, contain an agricultural subcomponent (i.e., its detailed classification might describe it as “deciduous broad-leaf forest with cropland”). The reassessment aimed to identify all such occurrences of agriculture, even when they occurred as minor cover components, although this was limited by the SLCR naming convention which did not identify an agricultural component if it occupied less than 30 percent of the SLCR region.

This reassessment resulted in a global map with three primary agricultural cover categories showing agricultural area intensity at 30–40, 40–60, and greater than 60 percent agriculture. PAGE area for agriculture thus adds up all 1-kilometer by 1-kilometer cells of the land cover characteristics database for which agricultural area intensity is more than 30 percent. Relative to the IGBP classification, the PAGE classification expands the geographic extent of agriculture by including areas where agriculture is not the dominant land cover. In addition to the IGBP agricultural area, it includes about 6 percent of the IGBP forest area and 13 percent of the IGBP grassland area as shown in the second column of this table. Furthermore, PAGE area for agriculture includes urban areas (with at least 30 percent agriculture) because no explicit urban class was assigned in the SLCR map units. This makes the PAGE agriculture area not directly comparable to the PAGE grassland and forest extent, which subtracted urban areas.

The reinterpretation to obtain agricultural extent, however, does not address some weaknesses in the original land cover characteristics database such as regional variations in the reliability of the satellite data interpretation, reflecting differences in the structure of land cover and in the availability of reliable groundtruthing data. Specific agricultural land-cover types whose interpretation is considered to be problematic include irrigated areas, permanently cropped areas (especially tree crops in forest margins), and extensive pastureland. Similarly, the adjustments made to obtain a better estimate for urban areas do not overcome the intrinsic limitations of the original land cover characteristics database, namely the coarse resolution and lack of auxiliary data to fine tune the satellite image interpretation for selected regions (e.g., in Africa). Therefore, all area estimates are most useful in depicting the relative size of broad ecosystem categories rather than providing an absolute estimate of the world’s surface covered by trees, grasses, and other vegetation types.

Population data came from an inventory of national censuses, which were compiled by administrative units. These data were standardized to 1995 and translated into a global grid consisting of 4.6-kilometer by 4.6-kilometer cells, each

cell accurately reflecting population counts in the respective administrative units intersecting with this cell. The map of PAGE extent was scaled to match the resolution of the population data, i.e., a generalization from 1-kilometer by 1-kilometer to 4.6-kilometer by 4.6-kilometer cells. To calculate population by ecosystem category, population was assigned to the majority ecosystem type. For example, population in cells that had 51 percent forest and 49 percent grassland were allocated to the forest category.

All population estimates in the table are based on the boundaries of the PAGE extent. Population for the PAGE area for agriculture, however, excludes urban areas, as defined by the Nighttime Lights of the World database, to be comparable with grassland and forest population estimates. The population estimates for total PAGE agriculture area, which includes urban areas, are as follows (in thousands): Agriculture Total - 4,002,386; Asia (excluding the Middle East) - 2,608,216; Europe - 616,663; Middle East and North Africa - 148,576; Sub-Saharan Africa - 232,742; North America - 179,263; Central America and the Caribbean - 40,527; South America - 171,869; and Oceania - 4,530. Because of overlapping areas between PAGE categories, population estimates in this table for PAGE cannot be added to produce a global total.

Carbon stocks represent total carbon amounts stored in both soil and vegetation. The estimates are based on two maps that use two global data sets, one of them modified and updated in line with best estimates of current vegetation cover.

The map of carbon stored in above- and below-ground live vegetation (1-kilometer by 1-kilometer resolution) is based on estimates developed by Olson et al. (1983). PAGE researchers worked in concert with USGS/EDC to apply Olson's estimates to the IGBP legend of land cover characteristics. While Olson's estimates of carbon storage in vegetation have, in some cases, been superseded by more recent studies at the national and regional level, they still represent the most commonly used global map of biomass carbon densities and provide the only consistent set of carbon storage estimates for vegetation types at this scale.

The map of carbon stored in soils (0.5 degree resolution) is based on the Global Data Set of Derived Soil Properties, compiled by the International Soil Reference and Information Centre (ISRIC) for the World Inventory of Soil Emission Potentials (WISE). The ISRIC-WISE data set also provides low and high estimates of carbon storage in different soil types based on soils with a median stone content and on so-called "stone-free" soils. The ISRIC estimates used here are those based, for the most part, on soil samples taken to a depth of 100 centimeters, the customary depth of measurement. One meter is the depth of soil believed to be most directly involved in interactions with the atmosphere and most sensitive to land use and environmental changes.

To calculate carbon stocks for this table, the two maps were first combined to produce a global map at a 0.5 degree resolution (requiring a generalization of the map showing carbon storage in vegetation) and then intersected with the PAGE area. The low and high estimates are based on combining low and high estimates of Olson et al. (above- and below-ground vegetation) and the ISRIC-WISE database (soil), respectively. The total carbon stored in terrestrial ecosystems ranges from 1,213 to 2,433 gigatons of carbon. (This number cannot be directly calculated from the table because of overlapping ecosystem categories.) While these results are consistent with other studies, the wide gap between the low and high estimates illustrates the major uncertainties in the underlying data.

Protected area represents the total area of each PAGE classification that falls within a protected area as designated by IUCN. A global map containing parks larger than 1,000 hectares and falling under IUCN management categories I-VI was produced for the analysis. For protected areas represented by points only, circular buffers corresponding to the size of the protected area were generated. This global map of protected areas was then intersected with the PAGE map and area estimates were summarized for each ecosystem category for all protected areas that had more than 50 percent in grassland, forest, and agriculture, respectively.

Data Table CMI.1 Marine and Freshwater Catches and Aquaculture Production

Sources: Marine catch, freshwater catch, and aquaculture production data: Food and Agriculture Organization of the United Nations (FAO), *Global Capture Dataset 1984–1997*, and *Aquaculture Quantities Dataset 1984–1997*, Fishery Statistics Databases, downloadable with *Fishstat-Plus* software at: <http://www.fao.org/WAICENT/FAOINFO/FISHERY/statist/FISOFT/FISHPLUS.HTM>.

Marine and freshwater fish catch data refer to marine and freshwater fish caught or trapped for commercial, industrial, and subsistence use (catches from recreational activities are included where available). Statistics for mariculture, aquaculture, and other kinds of fish farming are *not* included in the country totals. Marine fish includes demersal, pelagic, and diadromous fish caught in marine areas (i.e., sturgeons, paddlefish, river eels, salmon, trouts, smelt, shads, and miscellaneous diadromous fish). For a listing of groups of species under the demersal and pelagic categories, please refer to the Sources and Technical Notes of Data Table CMI.4. Freshwater fish includes fish caught in inland waters (i.e., carps, barbels, and other cyprinids; tilapias and other cichlids; and miscellaneous and freshwater fish) and diadromous fish caught in inland waters.

Mollusc and crustacean catch data refer to marine and freshwater molluscs and crustaceans caught or trapped for commercial, industrial, and subsistence use. Statistics for mariculture, aquaculture, and other kinds of shellfish farming are *not* included in the country totals. For a listing of species groupings in these categories, please refer to the Sources and Technical Notes of Data Table CMI.4.

Catch figures are the national totals averaged over a 3-year period; they include fish caught by a country's fleet anywhere in the world. Catches of freshwater species caught in low-salinity seas are included in the statistics of the appropriate marine area.

Data are represented as nominal catches, which are the landings converted to a live-weight basis, that is, the weight when

caught. Fish catch does not include discards. Landings for some countries are identical to catches. Catch data are provided annually to the FAO Fisheries Department by national fishery offices and regional fishery commissions. Some countries' data are provisional for the latest year. If no data are submitted, FAO uses the previous year's figures or makes estimates based on other information. For details on data quality, please refer to the Sources and Technical Notes to Data Table CM.4.

Aquaculture is defined by FAO as "the farming of aquatic organisms, including fish, molluscs, crustaceans, and aquatic plants. Farming implies some form of intervention in the rearing process to enhance production, such as regular stocking, feeding, and protection from predators, etc. [It] also implies ownership of the stock being cultivated...." Aquatic organisms that are exploitable by the public as a common property resource are included in the harvest of fisheries.

FAO's global collection of aquaculture statistics by questionnaire to national fishery offices was begun in 1984. FAO's aquaculture database has 337 "species items" that are grouped into six categories. *Total aquaculture production* includes marine, freshwater, and diadromous fish, molluscs, crustaceans, and aquatic plants cultivated in marine, inland, or brackish environments. *Marine fish* include a variety of species groups such as mullets, seabasses, groupers, snappers, tunas, mackerels, etc. *Diadromous fish* include sturgeons, river eels, salmon, trouts, etc. *Freshwater fish* include carps, barbels and other cyprinids, tilapias and other cichlids, perches, catfish, etc. *Molluscs* include oysters, mussels, scallops, clams, abalones, cephalopods, and freshwater molluscs. *Crustaceans* include, among others, freshwater crustaceans, crabs, lobsters, shrimps, and prawns. *Aquatic plants* include brown, red, and green seaweeds, and miscellaneous aquatic plants. For a detailed listing of species, please refer to the original source.

Data Table CMI.2 Trade in Fish and Fishery Products, Fish Consumption, and Fishers and Fleet Information

Sources: Trade in fish and fishery products data: Food and Agriculture Organization of the United Nations (FAO), *Trade and Production Dataset 1976–1997*, Fishery Statistics Databases, downloadable with *Fishstat-Plus* software at: <http://www.fao.org/WAICENT/FAOINFO/FISHERY/statist/FISOFT/FISHPLUS.HTM>.

Food supply from fish and fishery products: E. Laureti, *Fish and Fishery Products: World Apparent Consumption Sta-*

tistics Based on Food Balance Sheets (1961–1997), FAO Fisheries Circular No. 821, Rev. 5 (FAO, Rome, 1999). Data on fishers and fleets: FAO, Fishery Information, Data, and Statistics Unit (FIDI), December 1999.

Trade in *fish and fish products* include fish that are live, fresh, chilled, frozen, dried, salted, smoked, or canned, and other derived products and preparations. Trade in *molluscs and crustaceans* includes molluscs and crustaceans that are

live, fresh, chilled, frozen, dried, salted, smoked, or canned, and other derived products and preparations. Trade in *meals and solubles* includes all meals and solubles from fish and other aquatic animals. Figures are the national totals averaged over a 3-year period in millions of U.S. dollars. *Exports* are generally on a free-on-board basis (i.e., not including insurance or freight costs). *Imports* are usually on a cost, insurance, and freight basis (i.e., insurance and freight costs added in).

Regional totals are calculated by adding up imports or exports of each country included in that region. Therefore, the regional totals should not be taken as a net trade for that region, since there may also be trade occurring within a region. To collate national data, FAO uses its International Standard Statistical Classification of Fishery Commodities. The commodities categories cover products derived from fish, crustaceans, molluscs, and other aquatic animals and residues caught for commercial, industrial, or subsistence uses. Commodities produced by aquaculture and other kinds of fish farming are also included.

Total food supply from fish and fishery products is defined as the quantity of both freshwater and marine fish, seafood, and derived products available for human consumption. Data are presented in thousands of metric tons in live weight (i.e., the weight of the fish and shellfish at the time of harvest or capture). Food supply figures were calculated by taking a country's fish production plus imports of fish and fishery products, minus exports, minus the amount of fishery production destined for nonfood uses (i.e., reduction to meal, etc.), and plus or minus variations in stocks, wherever possible.

Per capita food supply from fish and fishery products is defined as the estimate of the total supply available for human consumption, divided by the *de facto* population (i.e., those persons living within a country's borders or region). Data are expressed in live-weight equivalent.

Data on food supply from fish and fishery products represent apparent consumption on a live-weight basis, which means that the amounts of fish and fishery products consumed include all parts of the fish, including bones. The amount of fish and seafood actually consumed may be lower than the figures provided, depending on how much is lost during storage, preparation, and cooking, and how much is discarded.

Fish protein as a percent of all animal protein and *fish protein as a percent of all protein supply* are defined as the quantity of protein from both freshwater and marine fish, seafood, and derived products available for human consumption as a percentage of all *animal* protein and all protein available.

FAO compiles statistics on apparent consumption of fish and fishery products for 220 countries, based on Supply/Utilization Accounts (SUAs) maintained in FAOSTAT, the statistical component of the FAO World Agriculture Information

Centre. An SUA contains an estimate of the supplies from different sources, which it matches against an estimate of how these supplies are used. A food balance sheet is derived from each SUA series for each primary and processed commodity. Currently FAO uses SUAs for eight groups of primary fisheries commodities and nine groups of processed products derived from fisheries commodities. Both official data from national fishery statistical offices and unofficial data from various sources are used to prepare the SUAs. For further information, please refer to the original source.

Number of fishers includes the number of people employed in commercial and subsistence fishing (both personnel on fishing vessels and on shore), operating in freshwater, brackish, and marine areas, and in aquaculture production activities. Data on the number of fishers are collected by FAO through annual questionnaires submitted to the national reporting offices of the member countries. When possible, other national or regional published sources are also used to estimate these figures. The numbers presented in this table are gross estimates. Many countries do not submit data on fishers or submit incomplete information; therefore, the quality of these data is poor. FAO recognizes that these statistics are incomplete and may not accurately reflect the current level of employment in the fishing sector. For further information on the variables and collection methodologies, please refer to the original source or to *Number of Fishers 1970-1996*, FAO Fisheries Circular No. 929, Rev. 1 (FAO, Rome, 1999).

FAO defines "fishery vessel[s]" as "mobile floating objects of any kind and size, operating in freshwater, brackish and marine areas, and used for catching, harvesting, searching, transporting, landing, preserving and/or processing fish, shellfish and other aquatic animals, residues and plants." Decked vessels are those that have a fixed structural deck covering the entire hull above the deepest operating waterline.

Number of decked fishery vessels includes trawlers, purse seiners, gill netters, long liners, trap setters, other seiners and liners, multipurpose vessels, dredgers, and other fishing vessels, as well as nonfishing vessels such as motherships, fish carriers, and fishery research vessels. Data on undecked vessels are being collected by FAO, but are not yet available. Recent international agreements such as the FAO Code of Conduct for Responsible Fisheries of 1995 may improve the collection and reporting of fishery fleet statistics.

Fleet data are collected by the FAO through questionnaires submitted to the national reporting offices of the member countries. Other national or regional published sources are also used to estimate fleet size. The flag of the vessel is used to assign its nationality, however, in many cases vessels are flagged in one country, while the ownership, landings, and trade resides with another nation. This approach is referred to as a "flag of conve-

nience,” and fishers or corporations use this approach to facilitate registration of a vessel (i.e., some countries have fewer registration restrictions), to gain access to fish in different Exclusive Economic Zones, or to avoid having to follow set fishing quotas in their own nation, among other reasons.

FAO recognizes that these fleet statistics are incomplete and may not accurately reflect the current world fishing

capacity. These data may include vessels that are no longer in operation. The quality of the estimates varies because many countries lack the resources to adequately monitor and report on fleet size. For further information, please refer to the original source or to *Fishery Fleet Statistics, 1970, 1975, 1980, 1985, 1989–95*, Bulletin of Fishery Statistics No. 35 (FAO, Rome, 1998).

Data Table CML3 **Coastal Statistics, Coastal Biodiversity, and Trade in Coral**

Sources: Coastal length, area of continental shelf, territorial sea, claimed exclusive economic zone, and exclusive fishing zone: Figures were calculated by L. Pruett and J. Cimino, unpublished data, *Global Maritime Boundaries Database* (Veridian-MRJ Technology Solutions, Fairfax, Virginia, January 2000). Percentage of the population within 100 kilometers from the coast: Center for International Earth Science Information Network (CIESIN), World Resources Institute, and International Food Policy Research Institute, *Gridded Population of the World, Version 2 alpha* (Columbia University, Palisades, New York, 2000) available online at: <http://sedac.ciesin.org/plue/gwp>. Mangrove extent and mangrove species number: M. Spalding, F. Blasco, and C. Field (eds.), *World Mangrove Atlas* (International Society for Mangrove Ecosystems, Okinawa, Japan, 1997). Area of mangrove forests protected: S. Iremonger, C. Ravilious, and T. Quinton, “A Statistical Analysis of Global Forest Conservation,” in S. Iremonger, C. Ravilious, and T. Quinton (eds.), *A Global Overview of Forest Conservation CD-ROM* (World Conservation Monitoring Centre [WCMC] and Centre for International Forestry Research, Cambridge, U.K., 1997). Species of seagrasses and coral genera: unpublished data (WCMC, Cambridge, U.K., August 1999). World total for number of seagrass species: J.E. Maragos et al. (eds.) *Marine and Coastal Biodiversity in the Tropical Island Pacific Region, Volume 1* (East-West Center, Honolulu, Hawaii, 1995). Trade in coral: Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) annual report data, WCMC CITES Trade Database (WCMC, Cambridge, U.K., December 1999).

Coastal length was derived from the World Vector Shoreline database at 1:250,000 on the surface of a spheroid using proprietary Veridian-MRJ Technology Solutions software and a geographic information system (GIS). Because a higher resolution database of global shorelines does not exist, these figures should be interpreted as approximations and used with caution. The measurement of coastal length is scale dependent. Maps of individual islands, for example, frequently show great detail, whereas regional maps summarize complex coastlines into a few simple lines. Shoreline lengths are

also affected by inclusion or exclusion of coastal features such as bays, lagoons, and river mouths. The only way to derive globally comparable statistics on coastline length is to use a single source with a constant scale. This is what has been attempted with the data presented in this table; however, highly complex coastlines will appear longer at higher resolutions. These estimates may differ from other published sources. In general, the coastline length of islands that are part of a country, but are not overseas territories, are included in the coastline estimate for that country (i.e., the Canary Islands are included in Spain). Coastline length for overseas territories and dependencies are not added to the total coastline of a country (i.e., Guam’s coastline is not included in the coastal length for the United States). Disputed areas are not included in country or regional totals unless otherwise noted.

The United Nations Convention on the Law of the Sea (UNCLOS) is an international agreement that sets conditions and limits on the use and exploitation of the oceans. This convention also sets the rules on how the maritime jurisdictional boundaries of the different member states are set. UNCLOS was opened for signature on December 10, 1982 in Montego Bay, Jamaica, and it entered into force on November 16, 1994. As of January 2000, 132 countries have ratified UNCLOS.

Under UNCLOS, coastal states can claim sovereign rights over the national *area of* juridical continental shelf (seabed and subsoil) for exploration and exploitation. The claim on the continental shelf can extend beyond the territorial sea to a distance of more than 200 nautical miles from the territorial sea baseline and may include the physiographic continental shelf (to a depth of 200 meters), the continental slope, and the continental rise, and could potentially extend onto the abyssal plain. Areas of continental shelf that are disputed by overlapping claims by one or more nations have been excluded from this table. Areas of “cooperative joint development” between two or more nations have also been excluded. The data for the continental shelf presented in this table are for the physiographic continental shelf.

Territorial sea is defined under UNCLOS as the zone up to 12 nautical miles from the baseline or low-water line along the coast. The coastal state's sovereignty extends to the territorial sea, including its seabed, subsoil, and the air space above it. Foreign vessels are allowed "innocent passage" through those waters. Even though the established maximum limit for a territorial sea is 12 nautical miles, some countries claim larger areas. Disputed territorial seas due to overlapping claims are not included in this table unless specified with a footnote. Portions of the territorial sea claims in excess of UNCLOS guidelines are not included in the table.

Under UNCLOS, coastal states can claim sovereign rights over a 200-nautical mile exclusive economic zone (EEZ). This area is termed *claimed exclusive economic zone*. UNCLOS allows for sovereign rights over the EEZ in terms of exploration, exploitation, conservation, and management of all natural resources in the seabed, its subsoil, and overlaying waters. UNCLOS allows other states to navigate and fly over the EEZ, as well as to lay submarine cables and pipelines. The inner limit of the EEZ starts at the outer boundary of the territorial sea (i.e., 12 nautical miles from the low-water line along the coast). For cases in which a country's low-water lines are within 400 nautical miles of each other, the EEZ boundaries are generally established by treaty, though there are many cases in which these boundaries are in dispute. Some states have not ratified UNCLOS, and many have not yet claimed their EEZ. Where a country claims a territorial sea in excess of 12 nautical miles, the inner limit of the EEZ is calculated from the point at which the 12 nautical mile line would exist.

UNCLOS states that "land-locked and geographically disadvantaged States have the right to participate on an equitable basis in [the] exploitation of an appropriate part of the surplus of the living resources of the EEZ's of coastal States of the same region or sub-region."

The *exclusive fishing zone* refers to an area beyond the outer limit of the territorial sea (12 nautical miles from the coast) in which the coastal state has the right to fish, subject to any concessions that may be granted to foreign fishermen. Some countries have made no claim beyond the territorial sea, while others have claimed an exclusive fishing zone instead of the more encompassing EEZ.

Given the uncertainties surrounding much of the delimitation of the territorial seas, EEZ, and exclusive fishing zones, these figures should be used with caution.

Population within 100 km from the coast refers to estimates of the percentage of the population living within the coastal area based on 1995 population figures. These estimates were calculated using a dataset that provides information on the spatial distribution of the world's human population on a 2.5-minute grid. Populations are distributed according to administrative districts, which vary in scale,

level, and size from country to country. A 100-kilometer coastal buffer was used in the GIS to calculate the number of people in the coastal zone for each country. The percentage of the population in the coastal zone was calculated from 1995 United Nations Population Division totals for each country.

Mangrove trees and shrubs are found along estuarine riverbanks and coastlines in tropical and subtropical countries. Their main characteristic is that they can tolerate salt and brackish water environments. Spalding et al. (1997) is the first compilation of data on *mangrove area* globally. Original data were compiled by WCMC from a variety of maps and other published sources including governments, mapping agencies, nongovernmental organizations, scientists, and international agencies. Data were incorporated into a GIS and area estimates were calculated from these GIS maps. Original published estimates of mangrove extent are presented when they are considered more accurate than GIS calculations. The year and quality of these data vary from country to country, therefore figures are not strictly comparable between countries. This is the first attempt to calculate mangrove extent globally, thus figures should be used with caution.

Area protected includes mangrove forest areas within the World Conservation Union-IUCN protected area Management Categories I-VI. For a description of these categories, please refer to the original source or to the Sources and Technical Notes of Data Table BI.1. WCMC carried out this analysis by overlaying forest and protected area coverages in a GIS. WCMC created the forest GIS coverages by using national and regional data such as land cover, forest, and vegetation maps. In general, WCMC assumed that the land cover categories shown in the source maps were correct and translated the legends directly to the forest type classes for the world without attempting to assess the accuracy of the source data. Documentation for the source data is given in full by Iremonger et al. (1997). *Number of species* includes mangrove species known to exist in each country.

Seagrasses are marine angiosperms that live in seawater. They are not true grasses, but have a grass-like appearance. They grow in soft substrates like sandy soils and form large underwater meadows in coastal regions of the world. All known seagrass species belong to only two families, and even though the total number of species worldwide is low—only 58—they play a key role in the functioning of the ecosystem by providing habitat, breeding, and feeding grounds for many species of fish and shellfish. Seagrasses are found both in tropical and temperate seas. *Number of seagrass species* includes seagrass species known to exist in each country.

Coral reefs are home to more than a quarter of all known marine fish species. In general, coral reefs are found in shallow waters, between the Tropic of Capricorn and the Tropic of Cancer. Most reef-forming corals belong to the family *Scler-*

ractinia, which are also called true or stony corals. They may be solitary or colonial and have a heavy external calcareous skeleton. Colonial species are restricted to shallow, clear waters in tropical seas, while solitary individuals can be found in deep waters and high latitudes. *Number of coral genera* includes only reef-building, colonial *Scleractinia* genera that are known to exist in each country.

The year and quality of the data on number of species and genera vary from country to country, therefore figures are not strictly comparable between countries.

International legal net trade in live coral includes pieces of coral species listed under CITES that were traded in 1997. Figures are the balance of imports minus exports. Exports are shown as negative balances in parentheses. CITES monitors the trade in more than 2,000 species of coral. The typical size of live coral pieces in trade is 10 by 6 centimeters in cross section, 6 centimeters in height, and weighing about 200 grams. For more information on trade in coral, please refer to E.P. Green and F. Shirley, *The Global Trade in Coral*, WCMC Biodiversity Series No. 9 (WCMC-World Conservation Press, Cambridge, U.K., 1999).

diversity Series No. 9 (WCMC-World Conservation Press, Cambridge, U.K., 1999).

Data on net exports and net imports as reported by CITES correspond to legal international trade and are based on data from permits issued, not on actual items traded. Figures may be overestimates if not all permits are used that year. Some permits issued in one year are used at a later date, therefore numbers of exports and imports may not match up exactly for any given year. World totals show the total number of imports, as calculating the balance of trade for the world would have canceled most figures.

Species traded within national borders and illegal trade in wildlife and wildlife products are not reflected in these figures. Illegal trade in wildlife products is estimated to be in the billions of dollars annually. In addition, data on mortality of individuals during capture or collection, transit, or quarantine are also not reflected in these numbers. For more information on CITES, please refer to the Sources and Technical Notes of Data Table BI.4.

Data Table CMI.4 **Marine Fisheries, Yield, and State of Exploitation**

Sources: Marine fishery production data: Food and Agriculture Organization of the United Nations (FAO), *Global Production Dataset 1950–1997*, Fishery Statistics Database, downloadable with *Fishstat-Plus* software at: <http://www.fao.org/WAICENT/FAOINFO/FISHERY/statist/FISOFT/FISHPLUS.HTM>.

Fisheries status: R. J. R. Grainger and S. M. Garcia, *Chronicles of Marine Fishery Landings (1950–1994): Trends Analysis and Fisheries Potential*, FAO Fisheries Technical Paper No. 359 (FAO, Rome, 1996). Discards: D.L. Alverson, M.H. Freeberg, J.G. Pope, and S.A. Murawski, *A Global Assessment of Fisheries Bycatch and Discards*, FAO Fisheries Technical Paper No. 339 (FAO, Rome, 1994) and FAO, *Report of the Technical Consultation on Reduction of Wastage in Fisheries*, Tokyo, Japan, October 28–November 1, 1996, FAO Fisheries Report No. 547, p. 27 and Supplement, p.388 (FAO, Rome, 1996).

FAO divides the world into 27 major fishing areas (19 marine and 8 inland) and organizes annual *production* data by 1,167 “species items”—species groups separated at the family, genus, or species level. Sometimes items are classified at a higher taxonomic level than the family (e.g., marine fish not elsewhere included are classified as *Osteichthyes*). Data Table CMI.4 only shows data for the marine fishing areas. The Antarctic total includes Antarctic portions of the Atlantic, Indian, and Pacific Oceans.

Average marine fish production data refer to marine fish caught or cultivated for commercial, industrial, and subsis-

tence use (catches from recreational activities are included where available). Statistics for mariculture, aquaculture, and other kinds of fish farming are included. FAO species groupings are as follows: *demersal fish*: flounders, halibuts, soles, etc.; cods, hakes, haddock, etc.; redfish, basses, congers, etc.; and sharks, rays, chimeras, etc; *pelagic fish*: jacks, mullets, sauries, etc.; herrings, sardines, anchovies, etc.; tunas, bonitos, billfish, etc.; and mackerels, snooks, cutlassfish, etc.

Average marine production includes demersal, pelagic, and miscellaneous marine fish (except diadromous fish); marine crustaceans (sea-spiders, crabs, etc.; lobsters, spiny-rock lobsters, etc.; squat lobsters; shrimps, prawns, etc.; krill, planktonic crustaceans, etc.; and miscellaneous marine crustaceans); and marine molluscs (squids, cuttlefish, octopuses, etc.; abalones, winkles, conchs, etc.; oysters; mussels; scallops, pectens, etc.; clams, cockles, arkshells, etc.; and miscellaneous marine molluscs). The years shown are 3-year averages.

Marine capture figures are average landings and do not include discards (see below). Data are represented as nominal catches, which are the landings converted to a live-weight basis, that is, the weight when caught. Catches of freshwater species caught in low-salinity seas are included in the statistics of the appropriate marine area.

Fish production data are provided annually to the FAO Fisheries Department by national fishery offices and regional fishery commissions. Some countries’ data are provisional for the latest year. If no data are submitted, FAO uses the pre-

vious year's figures or makes estimates based on other information. The quality of the production estimates varies because many countries lack the resources to adequately monitor landings within their borders. In addition, fishers sometimes underreport their catches because they have not kept within harvest limits established to manage the fishery. In some cases, catch statistics are inflated to increase the importance of the fishing industry to the national economy.

Years are calendar years except for Antarctic fisheries data, which are for split years (July 1–June 30). Data for Antarctic fisheries are given for the calendar year in which the split year ends.

Status of the fisheries: fully fished (F), overfished (Ov), or increasing (I) provide a measure of the degree to which fish stocks within FAO's marine fishing areas were exploited as of 1994. FAO used landings data collected between 1950 and 1994 for the top 200 species-/fishing-area combinations to estimate status. These 200 species-area combinations represent 77 percent of the world's marine production. Exploitation levels were determined by comparing the average landings from 1990 to 1994 to the estimated maximum potential landings for each fishing area. FAO estimated the potential landings for each area based on a generalized fishery development model. This

model shows that a fishery has four phases: undeveloped (the fishery is not being exploited), developing (the fishery starts to develop), mature (fishery yields are at their peak and their rate of increase is zero), and senescent (yields are decreasing). Based on this model, FAO estimated the year in which the mature phase of the development had been or would be reached (i.e., the rate of increase is zero), the year the resource would be *fully fished*. For more detailed information on the analysis, please refer to the original source.

Discards as a percentage of overall catch refers to the percentage of overall catch (discards plus landings) during the 1988–92 period that consisted of nontarget or low-value species and undersized fish of targeted species. Globally, marine fisheries bycatch (i.e., discarded catch plus incidental catch) has been estimated to account for some 20 million metric tons per year or 25 percent of global marine fish catch. In certain fisheries bycatch can outweigh the catch of target species. For example, in the shrimp capture fishery discards may outweigh the target species catch by a ratio of 5:1. For more information on bycatch and discards, please refer to the original sources or to the following publication: *The State of World Fisheries and Aquaculture 1998*, (FAO, Rome, 1999).

Data Table AF.1
Food and Agricultural Production

Source: Food and Agriculture Organization of the United Nations (FAO), *FAOSTAT On-line Statistical Service* (FAO, Rome, 1999).

Total and per capita index of agricultural production indicate how a given year's agricultural production compare to the average of the production in the base years 1989-91. The index portrays disposable output (i.e., feed and seed are deducted from total production) and is based on the sums of price-weighted quantities of agricultural and food production.

For a given year in a given country, the index is calculated by 1) multiplying the disposable output of each commodity (in terms of weight or volume) by the relevant 1989-91 average international commodity price; 2) summing the values of all commodities included in the topic of interest; and 3) dividing this sum of the values by the average sum for the years 1989-91 and multiplying by 100 to obtain the index number. The process is repeated for each year.

The regional and world index values for a given year are calculated by totaling the disposable outputs of all relevant countries for each agricultural commodity. Each of these aggregates is multiplied by a respective 1989-91 average international producer price and is then summed to give a total agricultural output value for that region or for the world in terms of average 1989-91 prices. This method reduces distortion caused by the use of international exchange rates.

The multiplication of disposable outputs with the 1989-91 unit value eliminates inflationary or deflationary distortions. In addition, however, the base period's relative prices among the individual commodities are also preserved. Especially in economies with high inflation, price patterns among agricultural commodities can change dramatically over time.

The agricultural production index includes all crop and livestock products originating in each country.

Average cereal crop yields includes yields of cereal crops for feed and seed. Cereals comprise all cereals harvested for dry grain, exclusive of crops cut for hay or harvested green. *Average production of cereals* includes cereal production for feed and seed.

Average roots and tuber crop yields covers all root crops grown principally for human consumption such as potatoes, cassava, yucca, taro, and yams; root crops grown principally for feed are excluded. *Average production of roots and tubers* includes production of the these crops.

Average meat production refers to production of meats excluding fish. All data shown relate to total meat production, from both commercial and farm slaughter. Data are given in terms of dressed carcass weight, excluding offal and slaughter fats.

Further information on these data and FAO are available online at: <http://www.fao.org>.

Data Table AF.2
Agricultural Land and Inputs

Sources: Food and Agriculture Organization of the United Nations (FAO), *FAOSTAT On-line Statistical Service* (FAO, Rome, 1999). Pesticide use: FAO, as reported by the World Bank, *World Development Indicators 1999*, on CD-ROM (Development Data Group, World Bank, Washington, D.C., 1999).

Cropland and cropland per 1000 people refer to land under temporary and permanent crops, temporary meadows, market and kitchen gardens, and temporarily fallow land. Permanent cropland is land under crops that does not need to be replanted after each harvest, such as cocoa, coffee, fruit trees, rubber, and vines. Human population data used to calculate *cropland per 1000 people* are for 1987 and 1997.

Irrigated land as a percentage of cropland refers to areas purposely provided with water, including land flooded by river water for crop production or pasture improvement, whether or not this area is irrigated several times or only once during the year.

Annual fertilizer use refers to nutrients in terms of nitrogen (N), phosphate (P_2O_5), and potash (K_2O). Fertilizer use is calculated using a trade balance approach. As nations sometimes increase or decrease their stocks of fertilizer in a given year, actual use may be larger or smaller than the figure given. If the sale of fertilizer stocks is particularly large, there is the potential for a negative fertilizer use value. Most fertilizer use data are reported yearly for the period July 1-June 30. For information on which countries report their data in ways that differ from the July 1-June 30 year, please refer to the FAO website noted below.

Pesticide use refers to per hectare use or sale to the agricultural sector of substances that reduce or eliminate unwanted plants or animals, especially insects. They include major groups of pesticides such as insecticides, mineral oils, herbicides, plant growth regulators, bacteria and seed treatments, and other active ingredients.

Tractors generally refer to wheeled and crawler tractors used in agriculture. Garden tractors are excluded.

Further information on these data and FAO are available online at: <http://www.fao.org>.

Table AF.3
Food Security

Sources: Cereal production, food aid and trade, and calorie-supply data: Food and Agriculture Organization of the United Nations (FAO), *FAOSTAT On-line Statistical Service* (FAO, Rome, 1999). Population data: United Nations (U.N.) Population Division, *World Population Prospects, 1950-2050 (The 1998 Revision)*, on diskette, (U.N., New York, 1998). Underweight children data: United Nations Children's Fund (UNICEF), *State of the World's Children 1999* (UNICEF, New York, 1997), including information from the World Health Organization, Demographic and Health Surveys, and Multiple Indicator Cluster Surveys.

This table addresses national food security (rather than household food security within nations). The variables were chosen based on FAO's definition of food security and causes of food insecurity. FAO defines food security as access by all people at all times to the food needed for a healthy and active life. FAO considers the failure to achieve food security to be a result of: 1) low productivity in agriculture (please refer to Data Table AF.1 for information on yields), 2) high seasonal and year-to-year variability in food supplies, and 3) lack of economic opportunity to overcome the above problems (please refer to the economics data tables EI.1-EI.3).

Average per capita cereal production is a rough indicator of whether a country produces enough food to feed its own population. The indicator includes cereal production for feed and seed. Cereals comprise all cereals harvested for dry grain, exclusive of crops cut for hay or harvested green. The population figures used are the midyear estimates published by the U.N. Population Division.

Variation in domestic cereal production is an indicator of whether cereal production is stable enough to ensure a predictable food supply. The variation is the average annual deviation, in percent, from the mean production for the time span given.

Net cereal imports and food aid as a percent of total cereal consumption indicates whether countries are able to produce sufficient grain for domestic consumption. *Food aid as a percent of total imports* shows whether countries are able to purchase imported grain, and are, therefore, more food secure, or whether they must depend on aid. Both indicators are based on trade data. The figures reflect net imports; exports were sub-

tracted from imports. Consumption was calculated by adding imports and received food aid to production, and then subtracting exports and donated food aid. Countries that export more grain than they import appear as negative figures.

Food aid refers to the donation or highly concessional sale of food commodities. Cereals include wheat, rice, coarse grains, bulgur wheat, wheat flour, and the cereal component of blended foods. Food aid data are reported by donor countries and international organizations. Donors that have provided food aid at irregular intervals or in very small quantities are not listed individually.

Average daily per capita calorie supply and *average daily per capita calories from animal products* indicate whether food production and imports provide enough calories to maintain human health. These indicators are estimates of total per capita calorie supplies from all food and from animal products, respectively. These values were calculated by applying appropriate factors for all primary and processed products. Per capita supplies are derived from the total food calorie supplies available for human consumption by dividing the quantity of calories by the total population actually partaking of the food supplies. Nationals living abroad are excluded, but foreigners living in the country are included. Adjustments are made wherever possible for part-time presence or absence, such as temporary migrants, tourists, and refugees. Per capita supply figures represent only the average supply available for the population as a whole and do not necessarily indicate what is actually consumed by individuals. Even if they are taken as approximations of per capita consumption, it is important to bear in mind that there could be considerable variation in consumption between individuals. In almost all cases, the population figures used are the midyear estimates published by the U.N. Population Division. Calorie supplies are reported in kilocalories (1 calorie = 4.19 kilojoules).

Percent of children underweight indicates whether a country has achieved sufficient food security to keep its population healthy. Percent of children underweight refers to children under 5 whose weight-for-age is below -2 standard deviations (for moderate underweight) or below -3 standard deviations (for severe underweight) from the median weight-for-age of the reference population.

Data Table FW.1
Freshwater Resources and Withdrawals

Sources: Water resources and withdrawal data: J. Margat, *Les eaux souterraines dans le monde* (Bureau de recherches géologiques et minières [BRGM], Département eau, Orléans, France, December 1990); J. Margat and D. Vallée, *Water Resources and Uses in the Mediterranean Countries* (Blue Plan, Sophia Antipolis, 1999); I.A. Shiklomanov, *Comprehensive Assessment of the Freshwater Resources of the World* (Stockholm Environment Institute, Stockholm, 1997); Organisation for Economic Co-Operation and Development (OECD), *OECD Environmental Data Compendium 1997* (OECD, Paris, 1997); Food and Agriculture Organization of the United Nations (FAO), *Irrigation in Africa in Figures, Water Reports No. 7* (FAO, Rome, 1995); FAO, *Irrigation Potential in Africa, Land and Water Bulletin No. 4* (FAO, Rome, 1997); FAO, *Irrigation in the Near East Region in Figures, Water Reports No. 9* (FAO, Rome, 1997); FAO, *Irrigation in the Former Soviet Union in Figures, Water Reports No. 15* (FAO, Rome, 1997); FAO, *Irrigation in Asia in Figures, Water Reports No. 18* (FAO, Rome, 1999); and FAO, *Irrigation in Latin America in Figures, Water Reports* (FAO, Rome, in preparation). Withdrawal data for Israel: Statistical Abstract of Israel 1999, available online at: <http://www.cbs.gov.il/engindex.htm>. Population: United Nations (U.N.) Population Division, *World Population Prospects, 1950-2050 (The 1998 Revision)*, on diskette (U.N., New York, 1999).

In general, data are compiled from published documents (including national, U.N., and professional literature) and from estimates, when necessary, of resources and consumption from models using other data, such as area under irrigated agriculture, livestock populations, and precipitation.

Average annual internal renewable water resources refers to the average annual flow of rivers and recharge of groundwater generated from endogenous precipitation. Caution should be used when comparing different countries because these estimates are based on differing sources and dates.

These annual averages also disguise large seasonal, interannual, and long-term variations.

When data for *annual river flows from and to other countries* are not shown, the internal renewable water resources figure may include these flows. When such data are shown, they are not included in a country's total internal renewable water resources.

Per capita annual internal renewable water resources data were calculated using 2000 population estimates.

Actual annual renewable water resources available for use is usually less than the sum of internal renewable resources and river flows. This is due to the fact that not all resources can be mobilized for use and that part of the flow coming from upstream countries or leaving for downstream countries might be reserved to those countries by treaty or other agreement. For example, actual water resources for Sudan include the flow of the Nile, less the amount that it is committed by treaty to deliver to Egypt at Aswan.

Annual withdrawals as a percentage of water resources refers to *total* water withdrawals, not counting evaporative losses from storage basins, as a percentage of internal renewable water resources. Water withdrawals also include water from nonrenewable groundwater sources, river flows from other countries, and desalinization plants in countries where that source is a significant part of all water withdrawals.

Per capita annual withdrawals were calculated using national population data for the year of data shown.

Sectoral withdrawals are classified as *domestic* (drinking water, homes, commercial establishments, public services [e.g., hospitals], and municipal use), *industry* (some countries include water withdrawn to cool thermoelectric plants, while others do not; these can be significant amounts of total water withdrawals), and *agriculture* (irrigation and livestock).

Totals may not add due to rounding.

Data Table FW. 2
Groundwater and Desalinization

Sources: Groundwater resources and withdrawal data: J. Margat, *Les eaux souterraines dans le monde* (Bureau de recherches géologiques et minières [BRGM], Département eau, Orléans, France, December 1990); J. Margat and D. Vallée, *Water Resources and Uses in the Mediterranean Countries* (Blue Plan, Sophia Antipolis, 1999); I.A. Shiklomanov, *Comprehensive Assessment of the Freshwater Resources of the World* (Stockholm Environment Institute, Stockholm, 1997); Organisation for Economic Co-Operation and Development (OECD), *OECD Environmental Data Compendium 1997* (OECD, Paris, 1997); and Economic Commission for Europe, *The Environment in Europe and North America* (United Nations, New York, 1992).

Groundwater resources and desalinization activities: J. Margat, *Lex Eaux Souterraines Dans Le Bassin Méditerranéen. Ressources et Utilisations Plan Bleu*, Doc. BRGM 282 (Ed. BRGM, Orléans, France, 1998); Food and Agriculture Organization of the United Nations (FAO), *Irrigation in*

Africa in Figures, Water Reports No. 7 (FAO, Rome, 1995); FAO, *Irrigation in the Near East Region in Figures, Water Reports No. 9* (FAO, Rome, 1997); FAO, *Irrigation in the Former Soviet Union in Figures, Water Report No. 15* (FAO, Rome, 1997); FAO, *Irrigation in Asia in Figures, Water Reports No. 18* (FAO, Rome, 1999); and FAO, *Irrigation in Latin America in Figures, Water Reports* (FAO, Rome, in preparation). Population data: United Nations (U.N.) Population Division, *World Population Prospects, 1950–2050 (The 1998 Revision)*, on diskette (U.N., New York, 1999).

Average annual groundwater recharge is the amount of water that is estimated to annually infiltrate soils, including water from rivers and streams that lose it to underlying strata. In general, this figure would represent the maximum amount of water that could be withdrawn annually without ultimately depleting the groundwater resource. These data are estimated in a variety of ways and caution should be used in comparing values for different countries.

Per capita recharge is the amount of water that annually infiltrates soils on a per person basis, using 2000 population estimates from the U.N. Population Division.

Annual total groundwater withdrawals refers to abstractions from all groundwater sources—even nonrenewable sources. The *percentage of annual recharge* refers to total groundwater withdrawals.

Per capita annual withdrawals were calculated using national population data for the year of data shown.

Sectoral share of withdrawals of groundwater is classified as *domestic* (drinking water, homes, commercial establishments, public services, and municipal use), *industry* (including water withdrawn to cool thermoelectric plants), and *agriculture* (irrigation and livestock).

Desalinated water production refers to the removal of salt from saline waters—usually seawater—using a variety of techniques including reverse osmosis. Most desalinated water is used for domestic purposes.

Totals may not add due to rounding.

Data Table FW.3 Major Watersheds of the World

Sources: Watershed area: Center for Remote Sensing and Spatial Analysis (CRSSA) of Cook College, Rutgers University and U.S. Army Corps of Engineers Construction Engineering Research Laboratory, “Major Watershed Basins of the World,” World Resources Institute (WRI), ed. *GlobalARC GIS CD-ROM Database* (CRSSA, New Brunswick, New Jersey, 1996). Number of countries within the watershed: Environmental Systems Research Institute (ESRI) software (ESRI, Redlands, California, 1995). Mean population density: Center for International Earth Science Information Network (CIESIN), WRI, and International Food Policy Research Institute, *Gridded Population of the World, Version 2 alpha* (Columbia University, Palisades, New York, 2000) available online at: <http://sedac.ciesin.org/plue/gwp>. Cropland, forest, and grassland data: U.S. Geological Survey (USGS) and University of Nebraska-Joint Research Center for the European Commission, *Global Land Cover Characterization Database, Version 1.2*, distributed by USGS Earth Resources Observation System Data Center (USGS, 1997), available online at: http://edcdaac.usgs.gov/glcc/globe_int.html. Developed area: National Oceanic and Atmospheric Administration-National Geophysical Data Center (NOAA-NGDC), *Nighttime Lights of the World Database* (NOAA-NGDC, Boulder, Colorado, 1997). Irrigated area: Center for Environmental Systems Research, University of Kassel, *Global Map of Irrigated Areas* (University of Kassel, Kassel, Germany, 1999). Arid area: United Nations Environment Programme (UNEP), *World Atlas of Desertification Global Arid-*

ity Zone Map (UNEP, Nairobi, 1992). Wetlands data: World Conservation Monitoring Centre (WCMC), *Biodiversity Map Library Database* (WCMC, Cambridge, U.K., 1996). Ramsar sites: Ramsar Convention Bureau, *List of Wetlands of International Importance* (Ramsar Convention Bureau, Gland, Switzerland, 1997). Water availability: B.M. Fekete, C.J. Vörösmarty, and W. Grabs, *Global Composite Runoff Fields Based on Observed River Discharge and Simulated Water Balance, Version 1.0* (University of New Hampshire, Durham, and Global Runoff Data Centre, Koblenz, Germany, 1999). Dams under construction: “1998 World Atlas and Industry Guide,” *International Journal on Hydropower and Dams* (Aqua-Media International, Surrey, U.K., 1998). Degree of fragmentation: unpublished data, Landscape Ecology Group, Umeå University, (Umeå, Sweden, 2000) and M. Dynesius and C. Nilsson, “Fragmentation and Flow Regulation of River Systems in the Northern Third of the World,” *Science* 266:753–762, 1994.

Major watersheds included in the table represent major river systems in the world and smaller river systems of regional significance. The basins in this table account for approximately 56 percent of the world’s land area.

Most of the data in this table were obtained through geographic information system analysis of multiple datasets. The base data layer used for geographic definition of the watersheds was a 5-minute resolution dataset (1/20th of a degree of latitude/longitude) of major basins. There are some limitations associated with the scale of these base data: watershed

boundaries are coarse, and some smaller basins and small tributaries are not identified. Basins were edited by WRI to capture some features such as deltas. Sub-basins were then aggregated to include all tributaries of the major river systems. Summary statistics for each watershed were digitally extracted by overlaying the basin map onto other existing digital datasets.

Modeled watershed area was estimated to a resolution of 1 square kilometer. These values only reflect horizontal extent (slopes are not accounted for) and may underestimate total land surface in the drainage area. Intermittent tributaries are included in most cases; for example, the northern part of the Kalahari Desert in Botswana within the Okavango basin is included, as well as many of the intermittent tributaries within the Lake Chad watershed. The tidal area of the St. Lawrence River is excluded. Water surface of rivers and lakes (e.g., the Great Lakes in the St. Lawrence River watershed) are included in the drainage area.

Countries within the watershed were identified using updated 1995 country boundaries from ESRI. Countries included in each basin are listed below in descending order as to their share of the basin (i.e., countries with more land within a basin are listed first). The countries listed may differ from other published sources due to the coarseness of the watershed boundaries. *Amu Darya*: Afghanistan, Uzbekistan, Tajikistan, Turkmenistan, and Kyrgyzstan. *Amur*: Russia, China, and Mongolia. *Brahmaputra*: China, India, Bangladesh, and Bhutan. *Chao Phrya*: Thailand. *Ganges*: India, Nepal, China, and Bangladesh. *Godavari*: India. *Hong*: Viet Nam and China. *Huang He*: China. *Indigirka*: Russia. *Indus*: Pakistan, India, Afghanistan, and China. *Irrawaddy*: Myanmar, China, and India. *Kizil*: Turkey. *Kolyma*: Russia. *Krishna*: India. *Kura-Araks*: Azerbaijan, Iran, Georgia, Armenia, and Turkey. *Lake Balkhash*: Kazakhstan and China. *Lena*: Russia. *Mahanadi*: India. *Mekong*: Laos, Thailand, China, Cambodia, Viet Nam, and Myanmar. *Narmada*: India. *Ob*: Russia, Kazakhstan, China, and Mongolia. *Salween*: China, Myanmar, and Thailand. *Syr Darya*: Kazakhstan, Kyrgyzstan, Uzbekistan, and Tajikistan. *Tapti*: India. *Tarim*: China and Kyrgyzstan. *Tigris and Euphrates*: Iraq, Turkey, Iran, and Syria. *Xun Jiang*: China and Viet Nam. *Yalu Jiang*: China and Dem. People's Rep. Korea. *Yangtze*: China. *Yenisey*: Russia and Mongolia. *Dalälven*: Sweden. *Danube*: Romania, Hungary, Yugoslavia, Austria, Germany, Slovakia, Bosnia and Herzegovina, Bulgaria, Croatia, Ukraine, Czech Republic, Slovenia, and Moldova, and with less than 1 percent of the basin area: Switzerland, Italy, Poland, and Albania. *Dnieper*: Ukraine, Belarus, and Russia. *Dniester*: Ukraine, Moldova, and Poland. *Don*: Russia and Ukraine. *Duero*: Spain and Portugal. *Ebro*: Spain. *Elbe*: Germany, Czech Republic, Austria, and Poland. *Garonne*: France, Spain, and Andorra. *Gläma*: Norway. *Guadalquivir*: Spain. *Kemijoki*: Finland, Norway, and Russia. *Loire*: France. *North Dvina*: Russia. *Oder*: Poland,

Czech Republic, and Germany. *Pechora*: Russia. *Po*: Italy and Switzerland. *Rhine-Maas*: Germany, France, Switzerland, Belgium, Netherlands, Luxembourg, Austria, and Liechtenstein. *Rhône*: France and Switzerland. *Seine*: France. *Tagus*: Spain and Portugal. *Ural*: Kazakhstan and Russia. *Vistula*: Poland, Ukraine, Belarus, and Slovakia. *Volga*: Russia and Kazakhstan. *West Dvina*: Belarus, Russia, and Latvia. *Weser*: Germany. *Congo*: Dem. Rep. Congo, Central African Republic, Angola, Rep. Congo, Tanzania, Zambia, Cameroon, Burundi, and Rwanda. *Cuanza*: Angola. *Cunene*: Angola and Namibia. *Jubba*: Kenya, Ethiopia, Somalia. *Lake Chad*: Chad, Niger, Central African Republic, Nigeria, Algeria, Sudan, Cameroon, and Libya. *Lake Turkana*: Ethiopia, Kenya, Sudan, and Uganda. *Limpopo*: South Africa, Botswana, Mozambique, and Zimbabwe. *Mangoky*: Madagascar. *Mania*: Madagascar. *Niger*: Mali, Nigeria, Niger, Algeria, Guinea, Cameroon, Burkina Faso, Benin, Côte d'Ivoire, and Chad. *Nile*: Sudan, Ethiopia, Egypt, Uganda, Tanzania, Kenya, Democratic Republic of Congo, Rwanda, Burundi, and Eritrea. *Ogooué*: Gabon, Rep. Congo, Cameroon, and Equatorial Guinea. *Okavango*: Botswana, Namibia, Angola, and Zimbabwe. *Orange*: South Africa, Namibia, Botswana, and Lesotho. *Oued Draa*: Morocco, Algeria, and Western Sahara (occupied by Morocco). *Rufiji*: Tanzania. *Senegal*: Mali, Mauritania, Senegal, and Guinea. *Shabelle*: Ethiopia and Somalia. *Volta*: Burkina Faso, Ghana, Mali, Togo, Côte d'Ivoire, and Benin. *Zambezi*: Zambia, Angola, Zimbabwe, Mozambique, Malawi, Botswana, Tanzania, and Namibia. *Alabama-Tombigbee*: United States. *Balsas*: Mexico. *Brazos*: United States. *Colorado*: United States and Mexico. *Columbia*: United States and Canada. *Fraser*: Canada and United States. *Hudson*: United States. *Mackenzie*: Canada. *Mississippi*: United States and Canada. *Nelson-Saskatchewan*: Canada and United States. *Rio Grande*: United States and Mexico. *Rio Grande de Santiago*: Mexico. *San Pedro and Usumacinta*: Mexico, Guatemala, and Belize. *Sacramento*: United States. *St. Lawrence*: Canada and United States. *Susquehanna*: United States. *Thelon*: Canada. *Yaqui*: Mexico and United States. *Yukon*: United States and Canada. *Amazon*: Brazil, Peru, Bolivia, Colombia, Ecuador, Venezuela, and Guyana. *Chubut*: Argentina and Chile. *Lakes Titicaca and Salar de Uyuni*: Bolivia, Peru and Chile. *Magdalena*: Colombia. *Orinoco*: Venezuela and Colombia. *Paraná*: Brazil, Argentina, Paraguay, and Bolivia. *Parnaíba*: Brazil. *Rio Colorado*: Argentina and Chile. *São Francisco*: Brazil. *Tocantins*: Brazil. *Uruguay*: Brazil, Uruguay, and Argentina. *Belyando*: Australia. *Dawson*: Australia. *Fly*: Papua New Guinea and Indonesia. *Kapuas*: Indonesia. *Mahakam*: Indonesia. *Murray-Darling*: Australia. *Sepik*: Papua New Guinea and Indonesia.

Average population density was extracted from a 2.5-minute resolution population map. Basins were overlaid on population data, and the population density was calculated

for each basin. Data are presented as the number of people per square kilometer.

The USGS Global Land Cover Characterization database with the International Geosphere Biosphere Programme (IGBP) classification was used to identify the extent of different land cover types within each basin. The land cover database is derived from 1-kilometer resolution satellite data spanning April 1992 through March 1993. *Percent cropland* indicates the percentage of the basin defined as cropland or a crop/natural vegetation mosaic. *Percent forest* indicates the percentage of the basin defined as evergreen needleleaf forest, evergreen broadleaf forest, deciduous needleleaf forest, deciduous broadleaf forest, or mixed forest. *Percent grassland* includes IGBP classes defined as open shrublands, closed shrublands, woody savannas, savannas, and grasslands. *Percent built-up area* was estimated from a 1-kilometer by 1-kilometer resolution map derived from nighttime imagery from the Defense Meteorological Satellite Program Operational Linescan System of the United States. The dataset contains the locations of stable lights, including frequently observed light sources such as gas flares at oil drilling sites. Time-series analysis is used to exclude transient light sources such as fires and lightning. The extent of "lit" area may be slightly overestimated due to the sensor's resolution and factors such as reflection from water and other surface features. It is a good indicator of the spatial distribution of settlements and infrastructure, but should not be interpreted as a measure of population density. (The mean settlement size required to produce enough light to be detected is much greater in developing countries than in industrialized countries because of differences in energy consumption.) The *Nighttime Lights of the World* data are more highly correlated with measures of economic activity and energy consumption and are, therefore, considered a measure of relative development within the watershed. The *percent built-up area* was calculated by dividing the area within a watershed indicated as "lit" by the total area of the watershed.

Percent irrigated area indicates the percentage of the basin that has irrigated agriculture. This percentage was calculated by overlaying the boundaries of the major watersheds on an irrigated area map developed by the University of Kassel. The map is a 0.5° by 0.5° grid depicting the percentage of the area equipped for irrigation in 1995. The map was derived by combining information from large-scale irrigation maps, and national, subnational, and drainage basin level data on irrigated area. It was assumed that the irrigated areas are evenly distributed across each grid cell.

Percent arid area indicates the percentage of the basin that falls in an area defined as semiarid, arid, or hyperarid on the *World Atlas of Desertification Global Aridity Zone Map*. This map is based on an aridity index derived from the ratio of mean annual precipitation to the mean annual potential evapotranspiration.

Percent wetlands was calculated by dividing the sum of the areas of wetlands within the basin by the total watershed area. It includes all areas designated as wetlands in the *Biodiversity Map Library Database*.

Ramsar sites are sites designated as "wetlands of international importance" according to the terms of the Convention on Wetlands (Ramsar, Iran, 1971). Spatial accuracy of the coordinates varies from one site to another. For more information on Ramsar sites, please refer to the Sources and Technical Notes of Data Table BI.1.

Water available per person indicates the amount of total runoff available per person in each river basin. These estimates are based on a global runoff distribution database developed by the University of New Hampshire and the Global Runoff Data Centre. *Water availability per person* was calculated by dividing the total runoff available in a basin by the total number of people in that basin. Estimates are in cubic meters per person per year. The runoff distribution database has a spatial resolution of 0.5° and was calculated based on basin boundaries defined by the University of New Hampshire. The population database used was a 2.5-minute resolution population map from CIESIN and WRI for the years 1990 and 1995 (CIESIN and WRI, 1999).

Large dams in progress includes dams at least 60 meters high that were under construction in 1998. The approximate location of the dams was referenced based on continental-scale maps. Because of the lack of detailed dam location (i.e., geographical coordinates) and the coarseness of the watershed boundaries, some dams that fall near the watershed boundaries may be included in the adjacent watershed by referencing error.

Degree of river fragmentation indicates the level of modification of a river system due to dams, reservoirs, interbasin transfers, and irrigation consumption. Irrigation consumption refers to the water that is evaporated as a result of irrigation, but excludes the amount of water returned to the river after irrigation. River systems were classified into three levels of fragmentation: high, medium, and low. These categories are based on the number of dams in the main river channel and tributaries, the level of flow regulation, and the length of the main-channel segment without dams in relation to the entire length of the river. Generally, rivers with low fragmentation do not have dams in the main channel, and, if present, dams on tributaries do not change the river's discharge by more than 2 percent. Rivers with high fragmentation may have more than three-quarters of their main channels dammed or may have dams that substantially change the annual discharge. For more detailed information on the analysis, please refer to the original source.

Given the scale in the delineation of watershed boundaries and other datasets used in the production of this table, these figures should be used with caution.

Data Table AC.1
Emissions from Fossil Fuel Burning and Cement Manufacturing

Source: All fossil fuel carbon dioxide emissions data: Carbon Dioxide Information Analysis Center (CDIAC), *Global, Regional, and National Annual CO₂ Emissions from Fossil-Fuel Burning, Hydraulic Cement Production, and Gas Flaring: 1751–1996*, ORNL/CDIAC-25, NDP-030 (Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee, March 1999). Data are available online at: <http://cdiac.esd.ornl.gov/ftp/ndp030/>. Gross domestic product at purchasing power parity in current international dollars: World Bank, *World Development Indicators 1999*, on CD-ROM (Development Data Group, World Bank, Washington, D.C., 1999). Population figures for per capita calculations: United Nations (U.N.) Population Division, *Annual Populations 1950–2050 (The 1998 Revision)*, on diskette (U.N., New York, 1999). Kyoto Protocol data: U.N. Framework Convention on Climate Change (an Internet-accessible numerical database) available online at: <http://www.unfccc.de/>.

Carbon dioxide (CO₂) emissions are often calculated and reported in terms of their content of elemental carbon. For this table, their values were converted to the actual mass of CO₂ by multiplying the carbon mass by 3.664 (the ratio of the mass of CO₂ to that of carbon).

These data from CDIAC represent a complete harmonized global dataset of CO₂ emissions. However, individual country estimates, based on more detailed information and a country-specific methodology, could differ. Guidelines were developed to assist in the preparation of national greenhouse gases inventories. The Intergovernmental Panel on Climate Change (IPCC) accepted these guidelines at its Twelfth Session in Mexico City on September 11–13, 1996. The guidelines were published in *Revised 1996 IPCC Guidelines for National Greenhouse Gas Inventories* (IPCC, Cambridge, England, 1997). Such data are currently available for an increasing number of countries, but long time series are rare. Methods used by CDIAC have the advantage of calculating CO₂ emissions from a single common dataset available for all countries.

Solid fuels, liquid fuels, and gaseous fuels are primarily, but not exclusively, coals, petroleum products, and natural gas, respectively. *Gas flaring* is the practice of burning off gas released in the process of petroleum extraction, a practice that is declining. During *cement manufacturing*, cement is calcined to produce calcium oxide. In the process, 0.498 metric ton of CO₂ is released for each ton of cement produced. *Total emissions for 1990 and 1996* consist of the sum of the CO₂ produced during the consumption of solid, liquid, and gaseous fuels, and from gas flaring and the manufacture of cement. However, these estimates do not include bunker fuels used in international transportation due to the diffi-

culty of apportioning these fuels among the countries benefiting from that transport. For more information, please see the *World Resources 2000–01 Database CD-ROM* or the original source for data on emissions from bunker fuels.

CDIAC annually calculates emissions of CO₂ from the burning of fossil fuels and the manufacture of cement for most of the countries of the world. CDIAC calculates emissions from data on the net apparent consumption of fossil fuels (based on the World Energy Data Set maintained by the U.N. Statistical Division) and from data on world cement manufacturing (based on the Cement Manufacturing Data Set maintained by the U.S. Geological Survey). Emissions are calculated using conversion factors based on global average fuel chemistry and oxidation rates.

Total contribution since 1950 represents total carbon dioxide emitted from 1950 to 1996, excluding bunker fuels. For the independent republics of the former Soviet Union, CO₂ emissions from 1950 to 1991 are estimates based on each country's post-1991 share of all emissions from the entire former Soviet Union. Total 1992 CO₂ emissions for the former Soviet Union were 3,289,909 tons; the share of that total was then calculated for each of the former Soviet republics. For example, Kazakhstan's emissions in 1992 were calculated to be 8.90 percent of the total carbon emitted from the former Soviet Union. The same approach was used for the other former Soviet republics. Therefore, the total contributions for the former Soviet republics from 1950 to 1991 should be taken only as rough approximations. An equivalent method was used to calculate historical estimates for the former Czechoslovakia.

Per capita carbon emissions are calculated using 1996 CO₂ emissions and the 1996 population estimates from the U.N. Population Division (medium-case scenario).

The carbon dioxide intensity of a country's economic output is expressed as *CO₂ emitted per million international dollars (PPP) of gross domestic product in metric tons*. Gross domestic product (GDP) measures the final output of goods and services produced by the domestic economy. The international dollar values, which are different from U.S. dollar values, are obtained using special conversion factors designed to equalize the purchasing powers of different currencies. This conversion factor, the purchasing power parity (PPP), is defined as the number of units of a country's currency that are required to buy the same amounts of goods and services in the domestic market as \$1 would buy in the United States. The computation involves deriving implicit quantities from national account expenditure data and specially collected price data, and then revaluing the implicit quantities in each

country at a single set of average prices. Because the same international price averages are used for every country, cross-country comparisons reflect differences in quantities of goods and services free of price-level differences. This procedure is designed to bring cross-country comparisons in line with cross-time real-value comparisons that are based on constant price series. PPP estimates tend to lower per capita GDPs in industrialized countries and raise per capita GDPs in developing countries.

Information concerning whether a country is a *signatory* and whether they have *ratified* the Kyoto Protocol is current through October 1999. The Kyoto Protocol attempts to place legally binding limits on greenhouse gas emissions (carbon dioxide [CO₂], methane [CH₄], nitrous oxide [N₂O], hydro-

fluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF₆]) from developed countries. By signing the treaty, a state recognizes the authentic text, intends to complete the procedures for becoming legally bound by it, and is committed not to act against the treaty's objectives before ratification. Ratification (or its alternatives of acceptance, approval, or accession) binds the state to observe the treaty. Depending on a country's system of governance, signing the treaty may be simply an executive decision while ratification may require legislative approval. Quantitative obligations by developed countries will be based on the base year of 1990. For further information about the Kyoto Protocol, please refer to the information available online at: <http://www.unfccc.de/resource/convkp.html>.

Data Table AC.2 Common Anthropogenic Pollutants

Source: Emissions data for anthropogenic pollutants: Co-Operative Programme for Monitoring and Evaluation of the Long-Range Transmission of Air Pollutants in Europe (EMEP), *1998 Major Review of Strategies and Policies for Air Pollution Abatement*, Report No. ECE/EB.AIR/65 (forthcoming). Data available online at: http://www.emep.int/emis_tables/tab1.html.

Emissions of sulfur in the form of sulfur oxides and nitrogen in the form of its various oxides together contribute to acid rain and adversely affect agriculture, forests, aquatic habitats, and the weathering of building materials. Sulfate and nitrate aerosols impair visibility. These data on anthropogenic sources should be used with caution because different methods and procedures may have been used in each country. Therefore, the best comparative data may be within-country time trends.

Sulfur dioxide (SO₂) is created by natural as well as anthropogenic activities. High concentrations of SO₂ have important adverse health effects, and there is particular concern about its effects on the health of young children, the elderly, and people with respiratory illnesses (e.g., asthma). SO₂ in the presence of moisture contributes to acid precipitation as sulfuric acid.

Anthropogenic *nitrogen oxides* (NO_x) come mainly from industrial sources and contribute to the creation of photochemical smog and the production of tropospheric ozone—an important greenhouse gas. All oxides of nitrogen also contribute to acid precipitation, in the form of nitric acid.

This data table combines data from EMEP, Economic Commission for Europe (ECE), and Organisation for Economic Co-Operation and Development (OECD) to compile as complete a picture as possible of sulfur and nitrogen emis-

sions. EMEP is an activity of the 1979 Convention on Long-Range Transboundary Air Pollution. Data on sulfur and nitrogen emissions are submitted to EMEP and ECE by parties as a part of their commitments under the protocols to the LRTAP Convention. In the event that official data are missing, EMEP interpolates between years for which official data exist. In the event that this is not possible, EMEP will use its own estimates or emissions estimates from other sources.

OECD polls its members on emissions with questionnaires that are completed by the relevant national statistical service or designee. OECD does not have any independent estimation capability.

EMEP and ECE report emissions in terms of the elemental content of sulfur, whereas OECD reports its emissions in terms of tons of oxides of sulfur. EMEP and ECE emissions estimates were converted to their weight in SO₂. EMEP and OECD report nitrogen emissions in terms of nitrogen dioxide. For further information, please consult the original sources.

This data table also reports OECD data for carbon monoxide and combines both EMEP and OECD data to describe the emissions of volatile organic compounds. Differences in definition can limit the comparability of these estimates.

Carbon monoxide (CO) is formed both naturally and from industrial processes, including the incomplete combustion of fossil and other carbon-bearing fuels. Automobile emissions are the most important source of CO, especially in urban environments. CO interferes with oxygen uptake in the blood, producing chronic anoxia leading to illness or, in the case of massive and acute poisoning, even death. CO also scavenges hydroxyl radicals that would otherwise contribute

to the removal of methane, a potent greenhouse gas, from the atmosphere.

In the presence of sunlight, *volatile organic compounds* (VOCs) are, along with oxides of nitrogen, responsible for

photochemical smog. Anthropogenic emissions of VOCs arise in part from the incomplete combustion of fuels or the evaporation of fuels, lubricants, and solvents, as well as from the incomplete burning of biomass.

Data Table AC.3 Atmospheric Concentration of Greenhouse and Ozone-Depleting Gases

Source: Carbon dioxide: Charles D. Keeling and T.P. Whorf, Carbon Dioxide Information Analysis Center (CDIAC), *Atmospheric CO₂ Concentrations—Mauna Loa Observatory, Hawaii, 1958–1998 (revised July 1999)*, ORNL/CDIAC-25, NDP-001/R9 (Environmental Sciences Division, Oak Ridge National Laboratory, Oak Ridge, Tennessee, July 1999). Data are accessible online at: <http://cdiac.esd.ornl.gov/ftp/ndp001/maunaloa.co2>. Preindustrial concentration for carbon dioxide: Neftel *et al.*, 1994, *Historical Carbon Dioxide Record from the Siple Station Ice Core* (Physics Institute, University of Bern, Switzerland) and data from the Law Dome ice core record. More details on the Law Dome ice core record may be found online at: <http://cdiac.esd.ornl.gov/trends/co2/law-dome.html>. Preindustrial concentration for methane: Etheridge *et al.*, 1994, *Concentrations of CH₄ from the Law Dome (East Side, “DE08” Site) Ice Core* (Commonwealth Scientific and Industrial Research Organisation Aspendale, Victoria, Australia). Preindustrial concentration for nitrous oxide: Etheridge *et al.*, 1988, *Concentrations of N₂O from the Law Dome (Summit, “BHD” Site) Ice Core* (Commonwealth Scientific and Industrial Research Organisation Aspendale, Victoria, Australia). Other greenhouse and ozone-depleting gases data: Atmospheric Lifetime Experiment (ALE) / Global Atmospheric Gases Experiment (GAGE) / Advanced GAGE (AGAGE) Network (updated and revised May 1999), CDIAC, Environmental Sciences Division, Oak Ridge National Laboratory, DB-1001 (an Internet-accessible numerical database), available online at: <http://cdiac.ESD.ORNL.GOV/ndps/ale-gage.html> (ALE/ GAGE/AGAGE Monthly Readings at Cape Grim, Tasmania), originally R.G. Prinn, R.F. Weiss, F.N. Alyea *et al.*, “Atmospheric CFC-11 (CCl₃F), CFC-12 (CCl₂F₂), and N₂O from the ALE-GAGE Network,” in T.A. Boden, D.P. Kaiser, R.J. Sepanski *et al.*, eds., *Trends ’93: A Compendium of Data on Global Change* (ORNL/CDIAC-65, CDIAC, Oak Ridge, Tennessee, 1994), pp. 396–420.

The greenhouse and ozone-depleting gases listed destroy atmospheric ozone, contribute to the greenhouse effect, or both. *Carbon dioxide* (CO₂) is emitted to the atmosphere by natural and anthropogenic processes. Due to the large concentration of CO₂ in the atmosphere compared to concentrations of other greenhouse gases, it is second only to water vapor in its potential effect on global warming. For further details, see the Source, and Technical Notes for Data Table EI.1.

Atmospheric CO₂ concentrations are monitored at many sites worldwide; the data presented here are from Mauna Loa, Hawaii (19° 32' North latitude, 155° 35' West longitude). Trends at Mauna Loa reflect global trends, although CO₂ concentrations differ significantly among monitoring sites at any given time. For example, the average annual concentration at the South Pole in 1997 was 2.3 parts per million lower than at Mauna Loa. The preindustrial concentration of CO₂ was estimated from an Antarctic ice core.

Annual means disguise large daily and seasonal variations in CO₂ concentrations. During the summer, photosynthetic plants store larger amounts of carbon than in the winter, resulting in seasonal variation in measurements. Some annual mean figures were derived from interpolated data. Data are revised to correct for drift in instrument calibration, hardware changes, and perturbations to “background” conditions. Details concerning data collection, revisions, and analysis are contained in C.D. Keeling, *et al.*, “Measurement of the Concentration of Carbon Dioxide at Mauna Loa Observatory, Hawaii,” in W.C. Clark, ed., *Carbon Dioxide Review: 1982* (Oxford University Press, New York, 1982).

Data for all other gases are from values monitored at Cape Grim, Tasmania (45° 41' South latitude, 144° 41' East longitude) under the ALE, GAGE, and Advanced GAGE. As with CO₂, gas concentrations at any given time vary among monitoring sites; the data reported here reflect global trends. Cape Grim generally receives unpolluted air from the Southeast and is the ALE/GAGE/AGAGE station with the longest, most complete dataset. Air samples were collected 4 times daily for ALE and 12 times daily for GAGE/AGAGE. The annual values shown here are averages of monthly values calculated by CDIAC. Missing values were interpolated. Preindustrial concentrations for nitrous oxide and methane were estimated from an Antarctic ice core.

Methane (CH₄) is emitted through the release of naturally occurring methane gas and as one of the products of anaerobic respiration. Emission sources associated with human activities include waste management (landfills), livestock management (enteric fermentation in ruminants), anaerobic respiration in the soils associated with wet rice agriculture, and combustion of fossil fuels and biomass (wood fuel and cleared forests). Sources of anaerobic respiration include the soils of moist forests, wetlands, bogs, tundra, and lakes. CH₄ acts to increase ozone in the troposphere and lower stratosphere. On

a molecule-for-molecule basis, methane is 21 times more powerful than CO_2 at trapping heat in the atmosphere.

Nitrous oxide (N_2O) is emitted by aerobic decomposition of organic matter in oceans and soils, by bacteria, by combustion of fossil fuels and biomass (wood fuel and cleared forests), by the use of nitrogenous fertilizers, and through other processes. N_2O is an important depletor of stratospheric ozone and is 310 times more powerful than CO_2 at trapping heat in the atmosphere.

Carbon tetrachloride (CCl_4) is an intermediate product in the production of CFC-11 and CFC-12. It is also used in other chemical and pharmaceutical applications and for grain fumigation. Compared with other gases, CCl_4 makes a small contribution to the greenhouse effect and to stratospheric ozone depletion.

Methyl chloroform (CH_3CCl_3) is used primarily as an industrial degreasing agent and as a solvent for paints and

adhesives. Its contribution to the greenhouse effect and to stratospheric ozone depletion also is small.

CFC-11 (CCl_3F), *CFC-12* (CCl_2F_2), and *CFC-113* ($\text{C}_2\text{Cl}_3\text{F}_3$) are potent depletors of stratospheric ozone. In addition, their cumulative effect on global warming may equal one-fourth that of CO_2 . CFCs are used as solvents and in many applications including refrigeration, air conditioning, foam blowing, and cleaning of electronics components.

Total gaseous chlorine is calculated by multiplying the number of chlorine atoms in each of the chlorine-containing gases (carbon tetrachloride, methyl chloroform, and CFCs) by the concentration of that gas. Chlorine and bromine act as catalysts in the destruction of ozone. Chlorine is not consumed in the reaction and thus can react with and destroy ozone molecules many times over.

Data Table ERC.1 Energy Production by Source

Source: International Energy Agency (IEA), *Energy Balances of Organisation for Economic Co-operation and Development (OECD) Countries, 1960–1997*, on diskette (OECD, Paris, 1999), and *Energy Balances of Non-OECD Countries, 1971–1997*, on diskette (OECD, Paris, 1999).

We present all energy data in a common unit of 1,000 metric tons of oil equivalent (toe) to facilitate comparisons of energy sourcing, consumption, substitution, and conservation. A toe is defined as 41.868 gigajoules.

Energy production from all sources is the amount of energy from all sources produced by each country in the year specified. In addition to solid, liquid, and gaseous fuels and nuclear electricity, the total also includes hydropower, geothermal, solar, wind, tidal, wave, combustible renewables and waste, and indigenous heat production from heat pumps. *Per capita* shows the amount produced per person for that country.

Energy production from *solid fuels* is the energy produced from all types of primary coal (i.e., hard coal or lignite). Peat is

also included in this category.

Energy production from *liquid fuels* is the energy produced from liquid fuels such as crude oil or natural gas liquids.

Energy production from *gaseous fuels* is the amount of energy produced from natural gas.

Energy production from *nuclear fuels* shows the primary heat equivalent of the electricity produced by nuclear power plants. Heat-to-electricity conversion efficiency is assumed to be 33 percent.

Total electricity generated is the toe equivalent of the electrical energy produced by thermal, nuclear, geothermal, hydropower (excluding pumped storage production—see notes to Data Table ERC.4), and other power plants. Electricity generated is not a primary energy source and should not be mistakenly added to the energy production from primary sources presented in this table. These data were converted from gigawatt-hours to toe using a conversion rate of 1 Gwh = 86 toe.

Data Table ERC.2 Energy Consumption by Source

Source: International Energy Agency (IEA), *Energy Balances of Organization for Economic Cooperation and Development (OECD) Countries, 1960–1997*, on diskette (OECD, Paris, 1999), and *Energy Balances of Non-OECD Countries, 1971–1997*, on diskette (OECD, Paris, 1999).

We present all energy data in a common unit of 1,000 metric tons of oil equivalent (toe) to facilitate comparisons of energy sourcing, consumption, substitution, and conservation. A toe is defined as 41.868 gigajoules.

Energy consumption from all sources is the amount of energy from all sources used by each country in the year specified. In addition to solid, liquid, and gaseous fuels and nuclear electricity, the total also includes hydropower, geothermal, solar, combustible renewables and waste, and indigenous heat production from heat pumps. *Per capita* shows the amount produced per person for that country.

It is important to note that the World Resources Institute (WRI) includes losses through transportation, friction, heat loss, and other inefficiencies as energy consumption. In these energy tables, total consumption equals IEA's total primary energy supply (TPES). TPES is indigenous production plus imports, minus exports, plus stock changes, minus international marine bunkers. (Note that IEA counts production after the removal of impurities such as sulfur.)

Stock change is the difference between stocks held by producers, transformation industries, importers, and large consumers the first day of the year and the last day of the year on national territory.

International marine bunker fuel is energy delivered to sea-going ships of all flags, including warships; ships traveling in inland and coastal waters are excluded.

Energy consumption from *solid fuels* is the total energy produced from all types of coal. Peat is also included in this category.

Energy consumption from *liquid fuels* is the energy consumed from liquid fuels such as crude oil or natural gas liquids.

Energy consumption from *gaseous fuels* is the amount of energy consumed from natural gas.

Energy consumption from *nuclear fuels* shows the primary heat equivalent of the electricity consumed from nuclear power plants. Heat-to-electricity conversion efficiency is assumed to be 33 percent.

Final consumption of electricity is the toe equivalent of the electrical energy consumed by the end user. This variable differs from the others in the table in that it does not present TPES but rather total final consumption, which does not include the energy lost to inefficiencies and transport losses.

Trade in energy imports and exports comprise the total amount of energy having crossed national territorial boundaries of the country, whether or not customs clearance has taken place. Coal imports and exports comprise the amount of fuels obtained from or supplied to other countries, whether or not there is an economic or customs union between the relevant countries. Coal in transit is not included. Oil and gas imported or exported under processing agreements (i.e., refining on account) are included. Quantities of oil in transit are excluded. Crude oil, natural gas liquids, and natural gas are reported as coming from the country of origin; refinery feedstocks and oil products are reported as coming from the country of last consignment. Re-exports of oil imported for processing within bonded areas are shown as exports of products from the processing country to the final destination. Electricity is considered as

imported or exported when it has crossed the national boundaries of the country.

To account for the differences in quality between types of coal and other energy sources, the IEA has applied specific factors (to correctly convert that specific fuel to toe) supplied by national administrations for the main categories of energy sources and flows or uses (i.e., production, imports, exports, industry).

Energy statistics are expressed in terms of net calorific value and therefore may be slightly lower than values presented by other statistical compendia. The difference between the net and the gross calorific value for each fuel is the latent heat of vaporization of the water produced during combustion of the fuel. For oil and coal, net calorific value is 5 percent less than gross; for most forms of natural and manufactured gas the difference is 9–10 percent.

Data Table ERC.3 **Energy Consumption by Economic Sector**

Source: International Energy Agency (IEA), *Energy Balances of Organisation for Economic Co-operation and Development (OECD) Countries, 1960–1997*, on diskette (OECD, Paris, 1999) and *Energy Balances of Non-OECD Countries, 1971–1997*, on diskette (OECD, Paris, 1999).

Data for OECD and Economic Commission for Europe countries were compiled from information provided in questionnaires filled out by each country. Data from other large- and medium-sized energy consumers come mostly from individual country information. Data for the remaining countries were gathered from a variety of international organizations.

The World Resources Institute calculated the amount of total final energy consumption (TFC) used by each sector as a percentage of TFC for each country. TFC does not include distribution losses and fuels that are transformed to another form (e.g., fuels used for electricity generation, crude oil transformed into oil products in refineries, etc.).

Industry sector includes energy consumption by the iron and steel industry, chemical industry, nonferrous metals basic industries, nonmetallic mineral products (glass, ceramic,

cement, etc.), transport equipment, machinery, mining and quarrying, food and tobacco, paper, pulp and print, wood and wood products, construction, textile and leather, and any non-specified industry. *Iron and steel* consumption is the energy consumed by the iron and steel industry as a percentage of the total energy consumed by the country.

Transportation sector includes all fuel for air, road, and water transport except fuel used for international marine bunkers and for ocean, coastal, and inland fishing. *Air* transportation includes both international and domestic civil aviation. *Road* transportation includes all human and cargo transport along national road networks.

Agriculture sector refers to all agricultural and forestry activity, including ocean, coastal, and inland fishing.

Commercial and public services refer to service sectors such as stores, repair shops, and restaurants.

Residential sector includes household energy use.

IEA reports that it can be difficult to distinguish accurately between the agriculture, commercial, and public services sectors and that a figure for “total energy use” is more accurate than totals for the individual sectors.

Data Table ERC.4 Energy from Renewable Sources

Source: International Energy Agency (IEA), *Energy Balances of Organisation for Economic Co-operation and Development (OECD) Countries, 1960–1997*, on diskette (OECD, Paris, 1999), and *Energy Balances of Non-OECD Countries, 1971–1997*, on diskette (OECD, Paris, 1999).

Data for OECD and Economic Commission for Europe countries were compiled from information provided in questionnaires filled out by each country. Data from other large- and medium-sized energy consumers come mostly from individual country information. Data for the remaining countries were gathered from a variety of international organizations.

Renewable energy production and renewable energy consumption from all renewable sources show the total energy produced and consumed, respectively, from renewable energy sources. The totals include hydroelectric power, wind, solar, wave and tidal, geothermal, and combustible renewables and waste. Consumption in this table is equal to total primary energy supply (TPES), as in Data Table ERC.2. Please see the notes to that data table for more information on TPES.

Renewable sources as a percent of total consumption from all sources is the percentage of each country's total energy consumption supplied from renewables and waste.

Fuels and waste comprise solid biomass and animal products, gas/liquids from biomass, industrial waste, and municipal waste. Biomass is any plant matter used directly as fuel or converted into a fuel. This includes wood, wood or crop waste, ethanol, animal wastes, and sulfur lyes (lignin in black liquor from paper production). These data are often estimated on small sample surveys or other incomplete information.

Hydroelectric refers to the energy content of the electricity produced in hydroelectric power plants excluding output from pumped storage plants (in which electricity is produced from pumping water uphill during times of low demand for use in times of high demand).

Energy from *geothermal* and *solar* sources is counted for both heat and electricity. Geothermal electricity production efficiency is assumed to be 10 percent of the total energy contained in the heat used to drive the electrical generators.

Wind refers to the use of wind energy for electrical production.

Data Table ERC.5 Resource Consumption

Sources: Passenger cars: International Road Federation, *World Road Statistics* as reported by the World Bank, *World Development Indicators 1999*, on CD-ROM (Development Data Group, World Bank, Washington, D.C., 1999). Motor gasoline: International Energy Agency (IEA), *Energy Balances of Organisation for Economic Co-operation and Development (OECD) Countries, 1960–1997*, on diskette (OECD, Paris, 1999), and *Energy Balances of Non-OECD Countries, 1971–1997*, on diskette (OECD, Paris, 1999). Meat and Paper: Food and Agriculture Organization of the United Nations (FAO), *FAOSTAT On-line Statistical Service* (FAO, Rome, 1999). Coffee: International Coffee Organization (ICO), various sources (ICO, London, 1999). Population data for World Resources Institute (WRI) calculations: United Nations (U.N.) Population Division, *Annual Populations 1950–2050 (The 1998 Revision)*, on diskette (U.N., New York, 1998).

In 1999, WRI published the report *Critical Consumption Trends and Implications: Degrading Earth's Ecosystems* by Emily Matthews and Allen Hammond. As essential inputs to both subsistence economies and advanced technological soci-

eties, natural resources are discussed as the basis of all human activity. The increase in consumption of these resources is driven by population growth, rising wealth, technological change, and urbanization. *Critical Consumption* examines consumption trends and associated effects on natural ecosystems. Among other topics, the report includes a discussion of wood fiber and food such as cereals, meat, and fish. *World Resources 1998–99* also examines trends in resource consumption and resulting environmental impacts. Specifically, *World Resources 1998–99* covers trends in consumption of paper, coffee, meat, vehicles, and other topics. The report can be found online at: <http://www.wri.org/trends/index.html>.

Passenger cars refer to the number of individual four-wheel vehicles per 1,000 people. These numbers exclude buses, freight vehicles, and two-wheelers such as mopeds and motorcycles.

Motor gasoline consumption depicts the per capita final consumption of fuel meant for use in internal combustion engines such as those in passenger cars. IEA reports the energy in metric tons of oil equivalent (toe). A conversion of 1

to 1,246 liters of motor gasoline was used to convert to liters of motor gasoline.

Meat consumption refers to the per capita total meat consumption. Total meat includes meat from animals slaughtered in countries, irrespective of their origin, and comprises horsemeat, poultry, and meat from all other domestic or wild animals such as camels, rabbits, reindeer, and game animals. Meat consumption was calculated using a trade balance approach (total production plus imports, minus exports).

Paper consumption refers to the per capita consumption of newsprint, printing and writing paper, construction paper

and paperboard, household and sanitary paper, special thin paper, and wrapping and packaging paper. Paper consumption was calculated using a trade balance approach (total production plus imports, minus exports). For some countries for which the FAO has no production data, production was assumed to be negligible and was assigned a value of 0 instead of reporting X for these countries. These countries, marked with a footnote, have <500,000 hectares of forest land and have imported <10,000 metric tons of recovered paper.

Coffee consumption refers to the per capita consumption of all coffee and is given in kilograms of raw coffee beans per capita.

Data Table HD.1 Demographic Indicators

Source: Population data: United Nations (U.N.) Population Division, *Annual Populations 1950–2050 (The 1998 Revision)*, on diskette (U.N., New York, 1998). Population change data: U.N. Population Division, *World Populations 1950–2050 (The 1998 Revision)*, on diskette (U.N., New York, 1998). Percentage of population in specific age groups and fertility rates: U.N. Population Division, *Demographic Indicators, 1950–2050 (The 1998 Revision)*, on diskette (U.N., New York, 1998).

Population refers to the midyear population. Most data are estimates based on population censuses and surveys. All projections are for the medium-case scenario. (See the following discussion.) The *average annual population change* takes into account the effects of international migration.

Many of the population data in the Population and Human Development Data tables are estimated using demographic models based on several kinds of demographic parameters: a country's population size, age and sex distribution, fertility and mortality rates by age and sex groups, growth rates of urban and rural populations, and the levels of internal and international migration.

Information collected through recent population censuses and surveys is used to calculate or estimate these parameters, but accuracy varies. The U.N. Population Division compiles and evaluates census and survey results from all countries. These data are adjusted for overenumeration and underenumeration of certain age and sex groups (e.g., infants, female children, and young males), misreporting of age and sex distributions, and changes in definitions, when necessary. These adjustments incorporate data from civil registrations, population surveys, earlier censuses, and, when necessary, population models based on information from socioeconomically similar countries. (Because the figures have been adjusted, they are not strictly comparable to the official statistics compiled by the U.N. Statistical Office and published in the *Demographic Yearbook*.)

After the figures for population size and age/sex composition have been adjusted, these data are scaled to 1990. Similar estimates are made for each 5-year period between 1950 and 1990. Historical data are used when deemed accurate, also with adjustments and scaling. However, accurate historical data do not exist for many developing countries. In such cases, the U.N. Population Division uses available information and demographic models to estimate the main demographic parameters. Projections are based on estimates of the 1990 base-year population. Age- and sex-specific mortality rates are applied to the base-year population to determine the number of survivors at the end of each 5-year period. Births are projected by applying age-specific fertility rates to the projected female population. Births are distributed by an assumed sex ratio, and the appropriate age- and sex-specific survival rates are applied. Future migration rates are also estimated on an age- and sex-specific basis.

Assumptions about future mortality, fertility, and migration rates are made on a country-by-country basis and, when possible, are based on historical trends. Four scenarios of population growth (high, medium, low, and constant) are created by using different assumptions about these rates. For example, the medium-case scenario assumes medium levels of fertility, an assumption that may vary among countries. Refer to the original source for further details. Although projections may be of questionable quality, U.N. demographic models are based on surveys and censuses with well-understood qualities, which makes these data fairly reliable.

The *percentage of population in specific age groups* shows a country's age structure: the percentage of the population <15, 15–65, and >65 years old. It is useful for inferring dependency, needs for education and employment, potential fertility, and other age-related factors.

The *total fertility rate* is an estimate of the number of children an average woman would have if current age-specific fertility rates remained constant during her reproductive years.

Data Table HD.2 Trends in Mortality, Life Expectancy, and AIDS

Sources: Infant mortality data: United Nations (U.N.) *Demographic Indicators 1950–2050 Medium Fertility Variant (The 1998 Revision)* (U.N. Population Division, New York, 1998). Under-5 mortality rate: United Nations Children's Fund (UNICEF) *State of the World's Children 1999* (UNICEF, New York, 1999), including information from

Multiple Indicator Cluster Surveys; U.N. Population Division; Demographic and Health Surveys; World Health Organization; and World Bank. Life expectancy at birth: U.N. Population Division, *Demographic Indicators, 1950–2050 (The 1998 Revision)*, on diskette (U.N., New York, 1998). AIDS data: Joint U.N. Programme on HIV/AIDS *Data Annex to the*

UNAIDS Report on the Global HIV/AIDS Epidemic (Joint U.N. Programme on HIV/AIDS, New York, June 1998).

The *infant mortality rate* is the probability of dying by age 1, multiplied by 1,000.

The *under-5 mortality rate* is the probability of dying by age 5, multiplied by 1,000. UNICEF provides this cohort measure, which is derived from *Child Mortality Since the 1960s: A Database for Developing Countries* (U.N., New York, 1992) and from infant mortality estimates provided by the U.N. Population Division. The mix is the result of a move from modeled estimates to estimates based on a periodically updated child mortality database. Nonetheless, this variable should not be compared to the U.N. Population Division's infant mortality rate, which is derived from population models where otherwise not available.

Life expectancy at birth is the average number of years that

a newborn baby is expected to live if the age-specific mortality rates effective at the year of birth apply throughout his or her lifetime.

Births attended by trained personnel is the percentage of births attended by physicians, nurses, midwives, or primary health care workers trained in midwifery skills.

Adults and children infected with HIV/AIDS is the number adults and children infected with HIV, whether or not they have developed AIDS symptoms. *Percent of adults infected with HIV/AIDS* is the percentage of the population aged 15–49 infected with HIV, whether or not they have developed AIDS symptoms. *Number of children orphaned by AIDS since beginning of epidemic* is the estimated number of children under 15 who have lost their mother or both parents to AIDS since the beginning of the epidemic. UNAIDS has not specified dates for the beginning of the epidemic.

Data Table HD.3 Safe Water, Sanitation, School Enrollment, and Literacy

Sources: Access to safe drinking water and access to adequate sanitation services: United Nations Children's Fund (UNICEF), *The State of the World's Children 1999* (UNICEF, New York, 1999), including information from Multiple Indicator Cluster Surveys; United Nations (U.N.) Population Division; Demographic and Health Surveys; World Health Organization (WHO); and World Bank. Education data: United Nations Educational, Scientific and Cultural Organization (UNESCO), *World Education Indicators 1998*, on CD-ROM (UNESCO, Paris, 1999). Literacy data: UNESCO, *World Education Indicators 1998*, on CD-ROM (UNESCO, Paris, 1999).

WHO collected data on drinking water and sanitation from national governments in 1980, 1983, 1988, and 1990 using questionnaires completed by public health officials, WHO experts, and resident representatives of the U.N. Development Programme. In 1990, the Joint Monitoring Programme was established by WHO and UNICEF to build national capacity in measuring all aspects of water and sanitation services. The most recent round of data collection from this program presented figures for access to clean water and sanitation for many countries as of 1994.

Definitions of safe drinking water and appropriate access to sanitation and health services vary depending upon location and condition of local resources, thus, comparisons can be misleading. In addition, urban and rural populations were defined by each national government and might not be strictly comparable. The official definitions of access to safe drinking water, adequate sanitation, and health services are listed below, but countries are at liberty to adapt these definitions to reflect internal conditions.

Population with access to safe drinking water is the percentage of the population with reasonable access to an adequate amount of safe drinking water (including treated surface water and untreated water from protected springs, boreholes, and sanitary wells). WHO defines reasonable access to safe drinking water in *urban* areas 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.

Population with access to sanitation is the percentage of the population with at least adequate excreta disposal facilities that can effectively prevent human, animal, and insect contact with excreta. *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 to sanitation services are defined as those with adequate disposal such as pit privies and pour-flush latrines.

UNESCO defines *net school enrollment* as the enrollment of the age group (as defined by the national education system) that corresponds to a given level of education, expressed as a percentage of the total population of that age group. *Gross school enrollment* is defined as the total enrollment, regardless of age, expressed as a percentage of the population that officially corresponds to the level of education. *Net primary school enrollment* is level 1 of the International Standard Classification of Education (ISCED), and its principal function is to provide the basic elements of education, such as those pro-

vided by elementary and primary schools. Inter-country comparisons should be made cautiously because regulations for this level are extremely flexible. *Net secondary school enrollment* includes levels 2 and 3 of the ISCED and is based upon at least 4 years of previous instruction at the first level. It is provided at teacher-training, middle, secondary, or high schools as well as vocational or technical schools. *Gross tertiary school enrollment* refers to levels 5 and 6 of the ISCED classification.

Adult literacy rate refers to the percentage of people aged 15 years and over who can read and write. UNESCO recom-

mends defining a person as illiterate “who cannot both read and write with understanding a simple statement about his or her everyday life.” This concept is widely accepted, but its interpretation and application vary from country to country when collecting data during demographic censuses and surveys. For the majority of countries, the literacy data shown in this publication are UNESCO estimates and projections that have been derived based on national population census data supplied by the countries to the U.N. Statistics Division or drawn from national publications.

Data Table EI.1
Gross Domestic Product and Trade Values

Sources: Gross domestic product (GDP), annual growth rates of GDP, distribution of GDP, exports of goods and services, and imports of goods and services data: World Bank, *World Development Indicators 1999*, on CD-ROM (Development Data Group, World Bank, Washington, D.C., 1999). Population data: United Nations (U.N.) Population Division, *Annual Populations 1950–2050 (The 1998 Revision)*, on diskette (U.N., New York, 1999).

Gross domestic product (GDP) using purchasing power parity (PPP) are estimates based on the purchasing power of currencies rather than on current exchange rates. GDP in PPP terms is derived by applying the ratio of GDP to gross national product (GNP) in local currency to the World Bank's estimates of GNP in PPP terms. The estimates are a blend of extrapolated and regression-based numbers, using the results of the International Comparison Programme (ICP). GNP data are available on the *World Resources 2000–01 Database CD-ROM*.

The ICP benchmark studies are essentially multilateral pricing exercises. The intercountry price comparisons have been reported in seven phases: 1970, 1973, 1975, 1980, 1985, 1990, and 1993. PPP studies recast traditional national accounts through special price collections and the disaggregation of GDP by expenditure components. National statistical offices report ICP details.

The international dollar values, which are different from the U.S. dollar values of GNP or GDP, are obtained using special conversion factors designed to equalize the purchasing powers of different currencies. This conversion factor, the PPP, is defined as the number of units of a country's currency required to buy the same amounts of goods and services in the domestic market as \$1 would buy in the United States. The computation involves deriving implicit quantities from national accounts expenditure data and specially collected price data and then revaluing the implicit quantities in each country at a single set of average prices. Because the same international price averages are used for every country, cross-country comparisons reflect differences in quantities of goods and services free of price-level differences. This procedure is designed to bring cross-country comparisons in line with cross-time real-value comparisons that are based on constant price series. PPP estimates tend to lower per capita GDPs in industrialized countries and raise per capita GDPs in developing countries.

Gross domestic product (GDP) based on exchange rates are in 1995 U.S. dollars (based on 1995 exchange rates), and are the sum of GDP at factor cost (value added in the agriculture, industry, and services sectors) and indirect taxes, less subsidies. World Bank GDP estimates are in accord with the U.N. System of National Accounts.

GDP per capita estimates are calculated using population estimates from 1997 or from the year for which the most recent GDP data are available, as noted in the data table.

The *average annual growth rates* of GDP are least-squares estimates of the real growth of output over each decade. Growth rates are computed from constant 1995 U.S. dollar price data to exclude the effects of inflation.

Percent from *agriculture* (GDP) includes agricultural and livestock production, agricultural services, logging, forestry, fishing, and hunting. Percent from *industry* (GDP) comprises mining and quarrying; manufacturing; construction; and electricity, gas, and water. Percent from *services* includes wholesale and retail trade; transport, storage, and communications; banking, insurance, and real estate; public administration and defense; ownership of dwellings; and others. The *distribution* of GDP does not always add up to 100 percent due to rounding.

Exports and imports of goods and services represent the value of all goods and other marketed services provided to the world. Included is the value of merchandise, freight, insurance, travel, and other nonfactor services. Factor and property income (formerly called factor services), such as investment income, interest, and labor income, is excluded. Figures are in current U.S. dollars. *Agriculture* includes agricultural raw materials such as hides and skins, crude rubber, cork and wood, pulp and waste paper, textile fibers, and crude animal and vegetable materials. Other categories measured include food, fuel, metals, and manufacturing.

Although considerable effort has been made to standardize economic data according to the U.N. System of National Accounts, care should be taken when interpreting the indicators presented in this data table. Intercountry and intertemporal comparisons using economic data involve complicated technical problems that are not easily resolved; therefore, readers are urged to read these data as characterizing major differences between economies rather than as precise, quantitative measurements.

Data Table EI.2

International Financial Flows and Investment

Sources: Official development assistance (ODA) and official aid (OA): Organisation for Economic Co-Operation and Development (OECD), *1998 Development Co-Operation* (OECD, Paris, 1999), *Geographical Distribution of Financial Flows to Aid Recipients, 1993-97* (OECD, Paris, 1999), and *World Development Indicators 1999*, on CD-ROM (Development Data Group, World Bank, Washington, D.C., 1999). ODA and OA as a percentage of gross domestic product (GDP): calculated using data from World Bank, *World Development Indicators 1999*, on CD-ROM (Development Data Group, World Bank, Washington, D.C., 1999). Population figures: United Nations (U.N.) Population Division, *World Population Prospects, 1950-2050 (The 1998 Revision)*, on diskette (U.N., New York, 1999). Direct foreign investment, total external debt, debt service as a percentage of total exports, and international tourism receipts: World Bank, *World Development Indicators 1999*, on CD-ROM (Development Data Group, World Bank, Washington, D.C., 1999).

Average annual official development assistance (ODA) and official aid (OA) data are in current U.S. dollars and include the net amount of disbursed grants and concessional loans given or received by a country less repayments of concessional loans. Grants include gifts of money, goods, or services for which no repayment is required. A concessional loan has a grant element of 25 percent or more. The grant element is the amount by which the face value of the loan exceeds its present market value because of below-market interest rates, favorable maturity schedules, or repayment grace periods. Nonconcessional loans are not a component of ODA. ODA and OA contributions are shown as negative numbers (in parentheses); receipts are shown as positive numbers. Data for some developing countries (e.g., Republic of Korea) are shown as negative numbers because of net repayments of concessional loans. Data for donor countries include contributions made directly to developing countries and through multilateral institutions.

ODA and OA sources include the development assistance agencies of OECD and members of Organization of Petroleum Exporting Countries as well as other countries. Grants and concessional loans to and from multilateral development agencies are also included in contributions and receipts. OECD gathers ODA and OA data through questionnaires and reports from countries and multilateral agencies. Only limited data are available on ODA and OA flows among developing countries. These data are included when known.

GDP data used to calculate *ODA and OA as a percentage of gross domestic product (GDP)* are estimates calculated according to purchasing power parity. For an explanation of pur-

chasing power parity, please refer to the Sources and Technical Notes for Data Table EI.1.

ODA and OA per capita estimates are calculated using the average 1995-97 ODA and OA estimates in current international dollars and U.N. Population Division population data for 1995-97.

Direct foreign investment is the net inflow of capital to acquire a lasting management interest (10 percent or more of the voting stock) in a country other than that of the investor. It includes equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments between countries.

The World Bank operates the Debtor Reporting System (DRS), which compiles reports supplied by the Bank's member countries. Countries submit detailed reports on the annual status, transactions, and terms of the long-term external debt of public agencies and of publicly guaranteed private debt. Additional data are drawn from the World Bank, the International Monetary Fund (IMF), regional development banks, government lending agencies, and the Creditor Reporting System (CRS). The CRS is operated by OECD to compile reports from the members of its Development Assistance Committee. For further information on international debt, refer to *Global Development Finance 1999, Volumes 1 and 2* (World Bank, Washington, D.C., 1999).

Total external debt (current U.S. dollars) includes long-term debt outstanding, short-term debt, use of IMF credit, and private nonguaranteed debt outstanding. A long-term debt is an obligation with maturity of at least one year that is owed to nonresidents and is repayable in foreign currency, goods, or services. Long-term debt is divided into long-term public debt and long-term publicly guaranteed private debt. A short-term debt is a public or publicly guaranteed private debt that has a maturity of one year or less. This class of debt is especially difficult for countries to monitor. Only a few countries supply these data through the DRS; the World Bank supplements these data with creditor-country reports, information from international clearinghouse banks, and other sources to derive rough estimates of short-term debt.

Use of IMF credit refers to all drawings on the Fund's General Resources Account. Use of IMF credit is converted to dollars by applying the average special drawing right exchange rate in effect for the year being calculated.

A private debt is an external obligation of a private debtor that is not guaranteed by a public entity. Data for this class of debt are less extensive than those for public debt; many countries do not report these data through the DRS. These data are included in the total when available.

Debt service as a percentage of total exports (in foreign currencies, goods, and services) comprises interest payments and principal repayments made on the disbursed long-term public debt as well as private, nonguaranteed debt; IMF debt repurchases; IMF charges; and interest payments on short-term debt as a percent of exports.

Debt data are reported to the World Bank in the units of currency in which they are payable. The World Bank converts these data to U.S. dollars using the IMF par values, central rates, or the current market rates, where appropriate. Debt service data are converted to U.S. dollars at the average exchange rate for the given year. Comparability of data among countries and years is limited by variations in methods, definitions, and comprehensiveness of data collection and reporting.

External debt data pertain to only those countries within the DRS, which focuses on low- and middle-income economies. Many economies are not represented within the system, and the estimates that are presented

may not be comprehensive due to different reporting frameworks.

These data do not account for the term structure and the concessionality mix of debt, which can lead to a misrepresentation of a country's underlying solvency.

Exports of goods and services represent the value of all goods and other marketed services provided to the world. Included are the value of merchandise, freight, insurance, travel, and other nonfactor services. Factor and property income (formerly called factor services), such as investment income, interest, and labor income, is excluded.

International tourism receipts include all expenditures (i.e., payments for goods and services) by international inbound visitors including money spent on national carriers for international transport. These receipts should include any payments made for goods and services in the destination country. Figures are in current U.S. dollars. The World Bank also reports expenditures of international outbound visitors in other countries.

Data Table EI.3 Distribution of Income and Poverty

Sources: Gini coefficient, income distribution, and poverty: World Bank, *World Development Indicators 1999*, on CD-ROM (World Bank, Washington, D.C., 1999). Poverty estimates for selected developed countries: Timothy M. Smeeding, *Financial Poverty in Developed Countries: The Evidence from the Luxembourg Income Study (Final Report to the United Nations Development Programme)*, Luxembourg Income Study, Working Paper No. 155 (Syracuse, New York and Walferdange, Luxembourg, 1997).

The World Bank uses a variety of data sources, including reports of governments, international organizations, and household surveys, when necessary, to compile estimates of the distribution of income within countries.

Survey year indicates the year data were collected for income distribution.

The *Gini coefficient* measures the extent to which the actual distribution of income differs from a perfectly equal distribution. A coefficient of zero would reflect perfect equality; a coefficient of 100 would represent perfect inequality. Graphically, the index is the area between a Lorenz curve (the cumulative percentage of total income against the cumulative percentage of recipients—starting with the poorest individual or household) and a hypothetical line of absolute equality (expressed as a percentage of the area under the line).

Percentage of income in each quintile of population is the share of total income that accrues to each of the different quintiles of the population ranked according to income

(starting with the lowest 20 percent and moving up the income ladder to the highest 20 percent).

Personal or household income or consumption data come from national household surveys. Rankings are based on per capita income or consumption. Comparisons among figures for each quintile are difficult because of differences in household size and in extent of income sharing among household members. If original data from the household survey were available, income (or consumption) shares were calculated. If these data were unavailable, then shares were estimated from the best available grouped data.

Year indicates the year data were collected for the international poverty line.

The percentage of people falling below the *international poverty line* was calculated by the World Bank for most of the countries from primary household survey data obtained from government statistical agencies and World Bank country departments. Data for poverty in selected developed countries are the product of the Luxembourg Income Study (LIS).

The international poverty line is the percentage of people living on less than \$1 a day (at 1985 international prices) adjusted for purchasing power parity. Purchasing power parity is defined as the number of units of a country's currency required to buy the same amounts of goods and services in the domestic market as \$1 would buy in the United States. The computation involves deriving implicit quantities from national accounts expenditure data and specially collected

price data and then revaluing the implicit quantities in each country at a single set of average prices. Because the same international price averages are used for every country, cross-country comparisons reflect differences in quantities of goods and services free of price-level differences. This procedure is designed to bring cross-country comparisons in line with cross-time real-value comparisons that are based on constant price series.

Year indicates the year data were collected for the national poverty line.

The *national* poverty rate is calculated using World Bank poverty assessments based on household surveys and reflects the population living below the national urban poverty line. Data for poverty in selected developed countries are the product of the LIS. The *rural* poverty rate refers to the rural population living below the national rural poverty line.

The *urban* poverty rate is the percentage of the population living under the national urban poverty line. Definitions of poverty vary among countries and consistent comparisons can be difficult. For further information, please refer to the original sources.

The definition of a *national poverty* line chosen here (40 percent of the median income) is just one of several alternative definitions offered by the LIS. Forty percent of the median income provides a close approximation to the percentage of poor reported by the United States (14.5 percent in 1994—using a more complex algorithm, U.S. Department of Commerce, *Statistical Abstract of the United States 1996* [U.S. Department of Commerce, Washington, D.C., 1996], p. 472). With the exception of the United States and the United Kingdom, these developed countries do not commonly report poverty estimates.

Data Table SGI.1 Small Nations and Islands

Sources: Population data: United Nations (U.N.) Population Division, *Annual Populations 1950–2050 (The 1998 Revision)*, on diskette (U.N., New York, 1998). Land area and cropland data: Food and Agriculture Organization of the United Nations (FAO), *FAOSTAT On-line Statistical Service* (FAO, Rome, 1999). Natural forest data: FAO, *State of the World's Forests 1999* (FAO, Rome, 1999). Number of coral genera: unpublished data (World Conservation Monitoring Centre, Cambridge, U.K., August 1999). Claimed exclusive economic zone: Figures calculated by L. Pruetz and J. Cimino, unpublished data, *Global Maritime Boundaries Database* (Veridian-MRJ Technology Solutions, Fairfax, Virginia, January 2000). Marine fish catch: FAO, *Global Capture Dataset 1984–1997* and *Aquaculture Quantities Dataset 1984–1997* fishery statistics databases, downloadable with *Fishstat-Plus* software at: <http://www.fao.org/WAICENT/FAOINFO/FISHERY/statist/FISOFT/FISHPLUS.HTM>.

Food supply from fish and fishery products: E. Laureti, *Fish and Fishery Products: World Apparent Consumption Statistics Based on Food Balance Sheets (1961–1997)*, FAO Fisheries Circular No. 821, Rev. 5 (FAO, Rome, 1999). Under-5 mortality rate: United Nations Children Fund (UNICEF), *State of the World's Children 1999* (UNICEF, New York, 1999). Gross domestic product: World Bank, *World Development Indicators 1999*, on CD-ROM (Development Data Group, World Bank, Washington, D.C., 1999).

Population refers to the midyear population. Most data are estimates based on population censuses and surveys. All projections are for the medium-case scenario. (See the Source and Technical Notes of Data Table HD.1 for further discussion regarding this variable.)

Land area refers to the total area of a country excluding area under inland seas, lakes, and national claims to the continental shelf. FAO compiles these data through responses to questionnaires from national governments.

FAO defines *natural forest* in tropical and temperate developing countries as a forest composed primarily of indigenous (native) tree species. Natural forests include closed forest, where trees cover a high proportion of the ground and where grass does not form a continuous layer on the forest floor (e.g., broadleaved forests, coniferous forests, and bamboo forests), and open forest, which FAO defines as mixed forest/grasslands with at least 10 percent tree cover and a continuous grass layer on the forest floor. Natural forests in tropical and temperate developing countries encompass all stands except plantations and include stands that have been degraded to some degree by agriculture, fire, logging, and other factors. For all regions, trees are distinguished from

shrubs on the basis of height. A mature tree has a single well-defined stem and is taller than 7 meters. A mature shrub is usually less than 7 meters tall. *Annual average percent change* reflects the increase or decrease in forest cover between 1990 and 1995. It is shown as a percentage of the exponential growth rate. If negative (in parentheses), these figures reflect net deforestation, which is defined as the clearing of forest lands for all forms of agricultural uses (shifting cultivation, permanent agriculture, and ranching) and for other land uses such as settlements, other infrastructure, and mining. In tropical countries, this entails clearing that reduces tree crown cover to less than 10 percent. It should be noted that deforestation, as defined here, does not reflect changes within the forest stand or site such as selective logging (unless the forest cover is permanently reduced to less than 10 percent). Such changes are termed “forest degradation,” and they can substantially affect forests, forest soil, wildlife and its habitat, and the global carbon cycle. Thus, the effects from the reported deforestation figures may be less than the effects from the total deforestation that includes all types of forest alterations. Positive change figures reflect net afforestation within a country or region. For further discussion of how FAO derives these values, see the Sources and Technical Notes of Data Table FG.1.

Cropland area refers to land under temporary and permanent crops, temporary meadows, market and kitchen gardens, and temporarily fallow land. Permanent cropland is land under crops that does not need to be replanted after each harvest, such as cocoa, coffee, fruit trees, rubber, and vines.

Scleractinia coral genera include only reef-building, colonial *Scleractinia* genera that are known to exist in each country. Coral reefs are home to more than a quarter of all known marine fish species. In general, coral reefs are found in shallow waters, between the Tropic of Capricorn and the Tropic of Cancer. Most reef-forming corals belong to the family *Scleractinia*, which are also called true or stony corals. They may be solitary or colonial and have a heavy external calcareous skeleton. Colonial species are restricted to shallow, clear waters in tropical seas, while solitary individuals can be found in deep waters and high latitudes.

Claimed exclusive economic zone (EEZ) is the coastal area claimed by a country within its 200-nautical mile EEZ. The United Nations Convention on the Law of the Sea (UNCLOS) is an international agreement that sets conditions and limits on the use and exploitation of the oceans. This convention sets the rules on the maritime jurisdictional boundaries of the different member states. UNCLOS was opened for signature on December 10, 1982 in Montego Bay, Jamaica, and

entered into force on November 16, 1994. As of January 2000, 132 countries had ratified UNCLOS. Under UNCLOS, coastal states can claim sovereign rights in a 200-nautical mile EEZ. This allows for sovereign rights over the EEZ in terms of exploration, exploitation, conservation, and management of all natural resources in the seabed, its subsoil, and overlaying waters. UNCLOS allows other states to navigate and fly over the EEZ, as well as to lay submarine cables and pipelines. The inner limit of the EEZ starts at the outer boundary of the territorial sea (i.e., 12 nautical miles from the low-water line along the coast). Some states have not ratified UNCLOS and many have not yet claimed their EEZ. For further information on EEZs, please refer to the Sources and Technical Notes of Data Table CMI.3.

Marine fish catch data refer to marine fish caught or trapped for commercial, industrial, and subsistence use (catches from recreational activities are included where available). Statistics for mariculture, aquaculture, and other kinds of fish farming are *not* included in the country totals. Marine fish includes demersal, pelagic, and diadromous fish caught in marine areas (i.e., sturgeons, paddlefishes, river eels, salmon, trout, smelt, shad, and miscellaneous diadromous fish). For a listing of groups of species under the demersal and pelagic categories, please refer to the Sources and Technical Notes of Data Table CMI.4. Catch figures are the national totals averaged over a 3-year period; they include fish caught by a country's fleet anywhere in the world. For further information, please refer to the Sources and Technical Notes of Data Table CMI.1 and CMI.4.

Food supply from fish and fishery products is defined as the quantity of both freshwater and marine fish, seafood, and derived products available for human consumption. *Per*

capita food supply from fish and fishery products is defined as the estimate of the total supply available for human consumption, divided by the *de facto* population (i.e., those persons living within a country's borders or region), unless otherwise noted. Data are expressed in live-weight equivalents. Data on food supply from fish and fishery products represent apparent consumption on a live-weight basis, which means that the amounts of fish and fishery products consumed include all parts of the fish, including bones. The amount of fish and seafood actually consumed may be lower than the figures provided, depending on how much is lost during storage, preparation, and cooking, and how much is discarded.

Fish protein as a percent of all protein is defined as the quantity of protein from freshwater and marine fish, seafood, and derived products available for human consumption as a percentage of all protein available.

The *under-5 mortality rate* is the probability of a child dying by age 5, multiplied by 1,000. Please see the Sources and Technical Notes of Data Table HD.2 for further information on how UNICEF derives this cohort measure.

Estimates of *gross domestic product* (GDP) using purchasing power parity (PPP) are based on the purchasing power of currencies rather than on current exchange rates. GDP in PPP terms is derived by applying the ratio of GDP to gross national product (GNP) in local currency to the World Bank's estimates of GNP in PPP terms. The estimates are a blend of extrapolated and regression-based numbers, using the results of the International Comparison Programme. GNP data are available on the *World Resources 2000-01 Database CD-ROM*. The Sources and Technical Notes of Data Table EI.1 contain more discussion on the derivation of GDP in PPP terms.