



2001 Environmental Sustainability Index

Annex 6: Variable Descriptions and Data

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Annex 6. Variable Descriptions and Data

This section contains complete variable descriptions along with the original data used to produce the 2001 Environmental Sustainability Index. Each page contains the following information:

- The component and indicator in which the variable is located.
- The variable name.
- The variable code and number.
- The units for the data shown in the data table.
- The reference year (MRYA = Most Recent Year Available for the stated range).
- Data source.

- The logic for including the variable in the ESI.
- A details section summarizing the methodology used to create the variable.
- The median, minimum, and maximum data values for that variable.
- A data table containing the original data for the variable, sorted in alphabetical order by country.

Additional information on the methodology used to create several of the more innovative variables can be found in the section of the 2001 ESI Report entitled “Challenges in Measuring Environmental Sustainability”.

Environmental Systems

Air Quality

Variable Name: Urban SO₂ Concentration

Variable Code: SO₂ **Variable Number:** 1

Units: Thousand Metric Tons

Reference Year: MRYA 1990-1996

Source: World Bank, World Development Indicators 2000, and WHO, Air Management Information System-AMIS 2.0, 1998.

Logic: Indicator of Urban Air Quality.

Details: The values were originally collected at the city level. The number of cities with data provided by each country varied. Within each country the values have been normalized by city population for the year 1995, then summed to give the total concentration for the given country.

Median: 20.49 **Minimum:** 1 **Maximum:** 209

Albania		Greece	34.00	Norway	5.47
Algeria		Guatemala		Pakistan	
Argentina	1.02	Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia	13.17	Hungary	37.33	Paraguay	
Austria	13.21	Iceland	5.00	Peru	
Azerbaijan		India	27.55	Philippines	33.00
Bangladesh		Indonesia		Poland	54.72
Belarus		Iran	209.00	Portugal	9.22
Belgium	21.02	Ireland	18.89	Romania	10.00
Benin		Israel		Russian Federation	97.55
Bhutan		Italy	15.55	Rwanda	
Bolivia		Jamaica		Saudi Arabia	
Botswana		Japan	24.33	Senegal	
Brazil	75.78	Jordan		Singapore	20.00
Bulgaria	52.45	Kazakhstan		Slovak Republic	22.66
Burkina Faso		Kenya		Slovenia	
Burundi		Korea, South	52.41	South Africa	22.37
Cameroon		Kuwait		Spain	11.00
Canada	12.87	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia	5.36	Sudan	
Chile	29.00	Lebanon		Sweden	5.23
China	97.07	Libya		Switzerland	11.34
Colombia		Lithuania	2.10	Syria	
Costa Rica	38.84	Macedonia		Tanzania	
Croatia	31.00	Madagascar		Thailand	11.00
Cuba	1.00	Malawi		Togo	
Czech Republic	27.34	Malaysia	20.49	Trinidad and Tobago	
Denmark	7.00	Mali		Tunisia	
Dominican Republic		Mauritius		Turkey	87.02
Ecuador	21.52	Mexico	74.00	Uganda	
Egypt	69.00	Moldova		Ukraine	
El Salvador		Mongolia		United Kingdom	21.96
Estonia		Morocco		United States	15.43
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	4.38	Netherlands	10.00	Venezuela	33.00
France	13.89	New Zealand	3.49	Vietnam	
Gabon		Nicaragua		Zambia	
Germany	12.80	Niger		Zimbabwe	
Ghana		Nigeria			

Environmental Systems

Air Quality

Variable Name: Urban NO2 Concentration

Variable Code: NO2 **Variable Number:** 2

Units: Thousand Metric Tons

Reference Year: MRYA 1990-1996

Source: World Bank, World Development Indicators 2000, and WHO, Air Management Information System-AMIS2.0,1998

Logic: Indicator of Urban Air Quality.

Details: The values were originally collected at the city level. The number of cities with data provided by each country varied. Within each country the values have been normalized by city population for the year 1995, then summed to give the total concentration for the given country.

Median: 45.11 **Minimum:** 0 **Maximum:** 130

Albania	
Algeria	
Argentina	56.79
Armenia	
Australia	16.47
Austria	39.75
Azerbaijan	
Bangladesh	
Belarus	42.60
Belgium	46.79
Benin	
Bhutan	
Bolivia	
Botswana	
Brazil	51.37
Bulgaria	111.14
Burkina Faso	
Burundi	
Cameroon	
Canada	41.24
Central African Republic	
Chile	81.00
China	71.72
Colombia	
Costa Rica	45.75
Croatia	
Cuba	5.00
Czech Republic	28.59
Denmark	54.00
Dominican Republic	
Ecuador	
Egypt	
El Salvador	70.50
Estonia	
Ethiopia	
Fiji	
Finland	30.69
France	56.61
Gabon	
Germany	40.07
Ghana	

Greece	64.00
Guatemala	69.33
Haiti	
Honduras	29.50
Hungary	45.11
Iceland	42.00
India	29.68
Indonesia	
Iran	
Ireland	
Israel	
Italy	124.38
Jamaica	
Japan	62.01
Jordan	
Kazakhstan	
Kenya	
Korea, Rep.	52.86
Kuwait	
Kyrgyz Republic	
Latvia	63.74
Lebanon	
Libya	
Lithuania	28.31
Macedonia	
Madagascar	
Malawi	
Malaysia	0.00
Mali	
Mauritius	
Mexico	130.00
Moldova	
Mongolia	
Morocco	
Mozambique	
Nepal	
Netherlands	58.00
New Zealand	19.51
Nicaragua	32.00
Niger	
Nigeria	

Norway	49.65
Pakistan	
Panama	42.00
Papua New Guinea	
Paraguay	
Peru	
Philippines	
Poland	58.14
Portugal	49.57
Romania	71.00
Russian Federation	3.44
Rwanda	
Saudi Arabia	
Senegal	
Singapore	30.00
Slovak Republic	25.62
Slovenia	
South Africa	44.03
Spain	32.36
Sri Lanka	
Sudan	
Sweden	29.68
Switzerland	42.20
Syria	
Tanzania	
Thailand	23.00
Togo	
Trinidad and Tobago	
Tunisia	
Turkey	9.45
Uganda	
Ukraine	
United Kingdom	64.47
United States	60.57
Uruguay	
Uzbekistan	
Venezuela	57.00
Vietnam	
Zambia	
Zimbabwe	

Environmental Systems

Air Quality

Variable Name: Urban Total Suspended Particulate Concentration

Variable Code: TSP **Variable Number:** 3

Units: Thousand Metric Tons

Reference Year: MRYA 1990-1996

Source: World Bank, World Development Indicators 2000, and WHO, Air Management Information System-AMIS 2.0, 1998.

Logic: Indicator of Urban Air Quality.

Details: The values were originally collected at the city level. The number of cities with data provided by each country varied. Within each country the values have been normalized by city population for the year 1995, then summed to give the total concentration for the given country.

Median: 72.68 **Minimum:** 9.00 **Maximum:** 320.00

Albania TSP		Greece	178.00	Norway	10.25
Algeria		Guatemala	272.33	Pakistan	
Argentina	50.01	Haiti		Panama	
Armenia		Honduras	320.00	Papua New Guinea	
Australia	43.22	Hungary	63.74	Paraguay	
Austria	45.70	Iceland	24.00	Peru	
Azerbaijan		India	277.45	Philippines	200.00
Bangladesh		Indonesia	271.00	Poland	
Belarus	18.40	Iran	248.00	Portugal	50.40
Belgium	77.91	Ireland		Romania	82.00
Benin		Israel		Russian Federation	100.00
Bhutan		Italy	86.91	Rwanda	
Bolivia		Jamaica		Saudi Arabia	
Botswana		Japan	43.63	Senegal	
Brazil	106.20	Jordan		Singapore	
Bulgaria	199.25	Kazakhstan		Slovak Republic	64.49
Burkina Faso		Kenya	69.00	Slovenia	
Burundi		Korea, South	83.79	South Africa	
Cameroon		Kuwait		Spain	72.68
Canada	31.26	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia	100.00	Sudan	
Chile		Lebanon		Sweden	9.00
China	310.82	Libya		Switzerland	30.66
Colombia	120.00	Lithuania	114.27	Syria	
Costa Rica	244.48	Macedonia		Tanzania	
Croatia	71.00	Madagascar		Thailand	223.00
Cuba		Malawi		Togo	
Czech Republic	58.39	Malaysia	91.58	Trinidad and Tobago	
Denmark	61.00	Mali		Tunisia	
Dominican Republic		Mauritius		Turkey	11.35
Ecuador	125.73	Mexico	279.00	Uganda	
Egypt		Moldova		Ukraine	
El Salvador		Mongolia		United Kingdom	
Estonia		Morocco		United States	
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	49.90	Netherlands	40.00	Venezuela	53.00
France	14.16	New Zealand	27.32	Vietnam	
Gabon		Nicaragua		Zambia	
Germany	43.27	Niger		Zimbabwe	
Ghana	137.00	Nigeria			

Environmental Systems

Water Quantity

Variable Name: Internal Renewable Water Resources Per Capita

Variable Code: WATCAP **Variable Number:** 4

Units: Thousands Cubic meters/person

Reference Year: 1961-1990 (avg.)

Source: Center for Environmental Systems Research, University of Kassel, WaterGAP 2.1B, 2001

Logic: The per capita volume of internal renewable water resources in a country is important for a variety of environmental services and to support the needs of the population.

Details: This variable measures internal renewable water (average annual surface runoff and groundwater recharge generated from endogenous precipitation, taking into account evaporation from lakes and wetlands) per capita. These data are derived from the WaterGAP 2.1 gridded hydrological model developed by the Center for Environmental Systems Research, University of Kassel, Germany. A special run of the model was performed in order to derive country-level estimates of internal renewable water resources. A logarithmic transformation of this variable was used in calculating the ESI. More details can be found in the main report.

Albania	4.09	Greece	2.96	Norway	57.71
Algeria	0.39	Guatemala	14.03	Pakistan	0.23
Argentina	7.65	Haiti	0.93	Panama	30.79
Armenia	1.12	Honduras	13.09	Papua New Guinea	154.61
Australia	27.81	Hungary	1.17	Paraguay	10.77
Austria	6.37	Iceland	294.34	Peru	47.55
Azerbaijan	0.79	India	1.56	Philippines	3.79
Bangladesh	0.60	Indonesia	10.96	Poland	1.48
Belarus	2.79	Iran	0.63	Portugal	3.25
Belgium	1.19	Ireland	12.47	Romania	1.45
Benin	2.25	Israel	0.36	Russian Federation	22.82
Bhutan	14.08	Italy	2.04	Rwanda	0.95
Bolivia	51.39	Jamaica	3.24	Saudi Arabia	0.22
Botswana	-7.46	Japan	2.60	Senegal	0.96
Brazil	37.25	Jordan	0.07	Singapore	
Bulgaria	2.00	Kazakhstan	3.63	Slovak Republic	2.24
Burkina Faso	0.86	Kenya	1.51	Slovenia	8.04
Burundi	0.65	Korea, South	1.16	South Africa	1.25
Cameroon	17.30	Kuwait	-0.20	Spain	2.33
Canada	84.51	Kyrgyz Republic	5.47	Sri Lanka	1.62
Central African Republic	37.41	Latvia	6.31	Sudan	-0.53
Chile	19.56	Lebanon	0.66	Sweden	15.91
China	1.72	Libya	0.60	Switzerland	5.74
Colombia	45.56	Lithuania	5.10	Syria	0.35
Costa Rica	23.35	Macedonia	2.55	Tanzania	3.64
Croatia	6.01	Madagascar	22.55	Thailand	3.50
Cuba	2.01	Malawi	1.55	Togo	2.71
Czech Republic	1.45	Malaysia	20.24	Trinidad and Tobago	1.58
Denmark	2.49	Mali	0.40	Tunisia	0.22
Dominican Republic	1.92	Mauritius	0.50	Turkey	2.59
Ecuador	30.37	Mexico	3.47	Uganda	1.00
Egypt	-0.24	Moldova	1.83	Ukraine	1.26
El Salvador	1.59	Mongolia	16.32	United Kingdom	3.10
Estonia	7.40	Morocco	0.42	United States	7.09
Ethiopia	2.17	Mozambique	5.81	Uruguay	24.24
Fiji	26.05	Nepal	5.97	Uzbekistan	0.31
Finland	18.01	Netherlands	0.65	Venezuela	33.83
France	3.26	New Zealand	79.81	Vietnam	2.80
Gabon	176.37	Nicaragua	29.15	Zambia	10.01
Germany	1.35	Niger	-0.33	Zimbabwe	3.40
Ghana	1.87	Nigeria	2.26		

Environmental Systems

Water Quantity

Variable Name: Water Inflow from Other Countries per Capita

Variable Code: WATINC **Variable Number:** 5

Units: Thousands Cubic meters/person

Reference Year: 1961-1990 (avg.)

Source: Center for Environmental Systems Research, University of Kassel, WaterGAP 2.1B, 2001

Logic: The sum of per capita internal water availability and the per capita volume of water flowing into a country provides a more complete assessment of a country's water resources, which are important for a variety of environmental services and to support the needs of the population.

Details: These data are derived from the WaterGAP 2.1 gridded hydrological model developed by the Center for Environmental Systems Research, University of Kassel, Germany. A special run of the model was performed in order to derive country-level estimates of inflow from other countries. There are some problems, in that the size of the grid cells (0.5 x 0.5 degree) do not accurately capture small countries. A logarithmic transformation of this variable was used in calculating the ESI. More details can be found in the main report.

Median: 1.18 **Minimum:** 0 **Maximum:** 235.85

Albania	2.83	Greece	1.24	Norway	2.53
Algeria	0.04	Guatemala	1.40	Pakistan	0.68
Argentina	18.72	Haiti	0.13	Panama	0.00
Armenia	0.56	Honduras	5.66	Papua New Guinea	0.93
Australia	0.00	Hungary	10.56	Paraguay	99.41
Austria	4.75	Iceland	0.00	Peru	19.17
Azerbaijan	2.25	India	0.39	Philippines	0.00
Bangladesh	9.36	Indonesia	0.32	Poland	0.23
Belarus	2.02	Iran	0.42	Portugal	2.33
Belgium	0.59	Ireland	1.39	Romania	7.74
Benin	6.93	Israel	0.00	Russian Federation	1.48
Bhutan	5.96	Italy	0.05	Rwanda	0.95
Bolivia	29.54	Jamaica	0.00	Saudi Arabia	0.00
Botswana	23.74	Japan	0.00	Senegal	1.68
Brazil	16.44	Jordan	0.17	Singapore	
Bulgaria	21.88	Kazakhstan	4.30	Slovak Republic	12.70
Burkina Faso	0.10	Kenya	0.81	Slovenia	6.53
Burundi	0.97	Korea, South	0.09	South Africa	0.11
Cameroon	2.88	Kuwait	0.00	Spain	0.05
Canada	4.73	Kyrgyz Republic	0.00	Sri Lanka	0.00
Central African Republic	21.29	Latvia	7.10	Sudan	4.28
Chile	1.13	Lebanon	0.00	Sweden	0.91
China	0.12	Libya	0.20	Switzerland	0.00
Colombia	39.23	Lithuania	2.95	Syria	1.83
Costa Rica	2.25	Macedonia	0.00	Tanzania	1.20
Croatia	27.60	Madagascar	0.00	Thailand	5.02
Cuba	0.00	Malawi	0.41	Togo	0.99
Czech Republic	0.58	Malaysia	0.50	Trinidad and Tobago	0.00
Denmark	0.00	Mali	5.93	Tunisia	0.22
Dominican Republic	0.13	Mauritius	0.00	Turkey	0.18
Ecuador	1.22	Mexico	0.67	Uganda	1.16
Egypt	1.25	Moldova	3.66	Ukraine	0.56
El Salvador	1.59	Mongolia	2.45	United Kingdom	0.03
Estonia	5.38	Morocco	0.00	United States	1.36
Ethiopia	0.04	Mozambique	8.97	Uruguay	235.85
Fiji	0.00	Nepal	1.18	Uzbekistan	2.54
Finland	2.35	Netherlands	5.50	Venezuela	27.47
France	0.79	New Zealand	0.00	Vietnam	6.07
Gabon	22.28	Nicaragua	2.71	Zambia	5.74
Germany	1.21	Niger	5.90	Zimbabwe	3.77
Ghana	1.02	Nigeria	0.83		

Environmental Systems

Water Quality

Variable Name: Dissolved Oxygen Concentration

Variable Code: GMS_DO **Variable Number:** 6

Units: Mg/Liter

Reference Year: 1994-96 or MRYA

Source: United Nations Environment Programme (UNEP), Global Environmental Monitoring System/Water Quality Monitoring System. <http://www.cciw.ca/gems/>

Logic: A measure of eutrophication, which has an important impact on the health of aquatic resources and ecosystems. High levels correspond to low eutrophication.

Details: The country values represent averages of the station-level values for the three year time period 1994-96. The number of stations per country varies depending on country size, number of water bodies, and level of participation in the GEMS monitoring system.

Albania	
Algeria	
Argentina	10.00
Armenia	
Australia	
Austria	
Azerbaijan	
Bangladesh	
Belarus	
Belgium	5.62
Benin	
Bhutan	
Bolivia	
Botswana	
Brazil	7.27
Bulgaria	
Burkina Faso	
Burundi	
Cameroon	
Canada	10.85
Central African Republic	
Chile	
China	7.99
Colombia	5.55
Costa Rica	
Croatia	
Cuba	8.10
Czech Republic	
Denmark	
Dominican Republic	
Ecuador	
Egypt	
El Salvador	
Estonia	
Ethiopia	
Fiji	8.01
Finland	11.19
France	10.33
Gabon	
Germany	
Ghana	6.80
Greece	
Guatemala	
Haiti	
Honduras	
Hungary	10.82
Iceland	
India	6.38
Indonesia	3.31
Iran	10.57
Ireland	
Israel	
Italy	
Jamaica	
Japan	10.18
Jordan	
Kazakhstan	
Kenya	
Korea, South	10.32
Kuwait	
Kyrgyz Republic	
Latvia	
Lebanon	
Libya	
Lithuania	5.68
Macedonia	
Madagascar	
Malawi	
Malaysia	4.54
Mali	8.46
Mauritius	
Mexico	6.10
Moldova	
Mongolia	
Morocco	6.25
Mozambique	
Nepal	
Netherlands	9.78
New Zealand	9.87
Nicaragua	
Niger	
Nigeria	
Norway	
Pakistan	7.11
Panama	
Papua New Guinea	
Paraguay	
Peru	
Philippines	8.24
Poland	9.86
Portugal	7.65
Romania	
Russian Federation	9.69
Rwanda	
Saudi Arabia	
Senegal	4.42
Singapore	
Slovak Republic	
Slovenia	
South Africa	
Spain	
Sri Lanka	
Sudan	7.84
Sweden	
Switzerland	
Syria	
Tanzania	6.87
Thailand	2.98
Togo	
Trinidad and Tobago	
Tunisia	
Turkey	
Uganda	
Ukraine	
United Kingdom	10.40
United States	9.26
Uruguay	
Uzbekistan	
Venezuela	
Vietnam	
Zambia	
Zimbabwe	

Environmental Systems

Water Quality

Variable Name: Phosphorus Concentration

Variable Code: GMS_PH **Variable Number:** 7

Units: Mg/Liter

Reference Year: 1994-96 or MRYA

Source: United Nations Environment Programme (UNEP), Global Environmental Monitoring System/Water Quality Monitoring System. <http://www.cciw.ca/gems/>

Logic: A measure of eutrophication, which affects aquatic resources health. High levels correspond to high eutrophication.

Details: The country values represent averages of the station-level values for the three year time period 1994-96. The number of stations per country varies depending on country size, number of water bodies, and level of participation in the GEMS monitoring system.

Median: 0.14 **Minimum:** 0.003 **Maximum:** 1.75

Albania		Greece		Norway	0.01
Algeria		Guatemala		Pakistan	0.20
Argentina	0.04	Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia		Hungary	0.21	Paraguay	
Austria		Iceland		Peru	
Azerbaijan		India		Philippines	
Bangladesh		Indonesia	0.56	Poland	0.33
Belarus		Iran		Portugal	0.13
Belgium	1.63	Ireland		Romania	
Benin		Israel		Russian Federation	
Bhutan		Italy		Rwanda	
Bolivia		Jamaica		Saudi Arabia	
Botswana		Japan	0.06	Senegal	
Brazil	0.09	Jordan	1.01	Singapore	
Bulgaria		Kazakhstan		Slovak Republic	
Burkina Faso		Kenya		Slovenia	
Burundi		Korea, South		South Africa	
Cameroon		Kuwait		Spain	
Canada		Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	1.75
Chile		Lebanon		Sweden	
China	0.28	Libya		Switzerland	0.07
Colombia		Lithuania	0.08	Syria	
Costa Rica		Macedonia		Tanzania	
Croatia		Madagascar		Thailand	0.31
Cuba	0.01	Malawi		Togo	
Czech Republic		Malaysia	0.04	Trinidad and Tobago	
Denmark		Mali	0.15	Tunisia	
Dominican Republic		Mauritius		Turkey	
Ecuador		Mexico		Uganda	
Egypt		Moldova		Ukraine	
El Salvador		Mongolia		United Kingdom	0.09
Estonia		Morocco	0.26	United States	0.08
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	0.01	Netherlands	0.27	Venezuela	
France	0.17	New Zealand	0.04	Vietnam	
Gabon		Nicaragua		Zambia	
Germany	0.32	Niger		Zimbabwe	
Ghana		Nigeria			

Environmental Systems

Water Quality

Variable Name: Suspended Solids

Variable Code: GMS_SS **Variable Number:** 8

Units: Mg/Liter

Reference Year: 1994-96 or MRYA

Source: United Nations Environment Programme (UNEP), Global Environmental Monitoring System/Water Quality Monitoring System. <http://www.cciw.ca/gems/>

Logic: A measure of water quality and turbidity.

Details: The country values represent averages of the station-level values for the three year time period 1994-96. The number of stations per country varies depending on country size, number of water bodies, and level of participation in the GEMS monitoring system.

Median: 4.03 **Minimum:** 1.17 **Maximum:** 7.97

Albania		Greece		Norway	
Algeria		Guatemala		Pakistan	6.76
Argentina	4.77	Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia		Hungary	3.42	Paraguay	
Austria		Iceland		Peru	
Azerbaijan		India		Philippines	3.62
Bangladesh	4.08	Indonesia	5.37	Poland	3.24
Belarus		Iran		Portugal	1.94
Belgium	3.53	Ireland		Romania	
Benin		Israel		Russian Federation	3.23
Bhutan		Italy		Rwanda	
Bolivia		Jamaica		Saudi Arabia	
Botswana		Japan	3.27	Senegal	
Brazil	4.08	Jordan	4.50	Singapore	
Bulgaria		Kazakhstan		Slovak Republic	
Burkina Faso		Kenya		Slovenia	
Burundi		Korea, South	1.69	South Africa	
Cameroon		Kuwait		Spain	
Canada	2.84	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	6.38
Chile	5.10	Lebanon		Sweden	
China	7.97	Libya		Switzerland	3.98
Colombia	4.77	Lithuania		Syria	
Costa Rica		Macedonia		Tanzania	
Croatia		Madagascar		Thailand	5.60
Cuba		Malawi		Togo	
Czech Republic		Malaysia	5.70	Trinidad and Tobago	
Denmark		Mali	4.55	Tunisia	
Dominican Republic		Mauritius		Turkey	
Ecuador		Mexico	5.17	Uganda	
Egypt		Moldova		Ukraine	
El Salvador		Mongolia		United Kingdom	2.26
Estonia		Morocco	4.40	United States	
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	1.17	Netherlands	3.26	Venezuela	
France	3.24	New Zealand	2.32	Vietnam	
Gabon		Nicaragua		Zambia	
Germany	3.06	Niger		Zimbabwe	
Ghana	4.55	Nigeria			

Environmental Systems

Water Quality

Variable Name: Electrical Conductivity

Variable Code: GMS_EC **Variable Number:** 9

Units: Usie/Centimeter

Reference Year: 1994-96 or MRYA

Source: United Nations Environment Programme (UNEP), Global Environmental Monitoring System/Water Quality Monitoring System. <http://www.cciw.ca/gems/>

Logic: A widely used bulk measure of metals concentration and salinity. High levels of conductivity correspond to high concentrations.

Details: The country values represent averages of the station-level values for the three year time period 1994-96. The number of stations per country varies depending on country size, number of water bodies, and level of participation in the GEMS monitoring system.

Albania		Greece		Norway	0.61
Algeria		Guatemala		Pakistan	410.13
Argentina	113.68	Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia		Hungary	579.26	Paraguay	
Austria		Iceland		Peru	
Azerbaijan		India	4,520.19	Philippines	136.70
Bangladesh	231.60	Indonesia	167.13	Poland	1,043.77
Belarus		Iran	419.64	Portugal	191.13
Belgium	2,626.19	Ireland		Romania	
Benin		Israel		Russian Federation	0.00
Bhutan		Italy		Rwanda	
Bolivia		Jamaica		Saudi Arabia	
Botswana		Japan	179.29	Senegal	380.80
Brazil	145.65	Jordan	1,014.42	Singapore	
Bulgaria		Kazakhstan		Slovak Republic	
Burkina Faso		Kenya	504.00	Slovenia	
Burundi		Korea, South	141.33	South Africa	
Cameroon		Kuwait		Spain	
Canada	237.44	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	259.33
Chile	667.94	Lebanon		Sweden	77.56
China	522.77	Libya		Switzerland	301.06
Colombia	85.80	Lithuania	598.75	Syria	
Costa Rica		Macedonia		Tanzania	363.21
Croatia		Madagascar		Thailand	348.33
Cuba	515.00	Malawi		Togo	
Czech Republic		Malaysia	508.01	Trinidad and Tobago	
Denmark		Mali	120.77	Tunisia	
Dominican Republic		Mauritius		Turkey	
Ecuador		Mexico	1,239.62	Uganda	
Egypt		Moldova		Ukraine	
El Salvador		Mongolia		United Kingdom	368.06
Estonia		Morocco	3,300.63	United States	375.65
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	50.49	Netherlands	623.12	Venezuela	
France	299.38	New Zealand	125.84	Vietnam	
Gabon		Nicaragua		Zambia	
Germany	1,566.07	Niger		Zimbabwe	
Ghana	185.59	Nigeria			

Environmental Systems

Biodiversity

Variable Name: Percentage of Mammals Threatened

Variable Code: PRTMAM **Variable Number:** 10

Units: Percent of Mammals

Reference Year: 1996

Source: World Resources Institute, *World Resources 2000-2001*, Washington, DC: WRI, 2000. Original sources: World Conservation Monitoring Center, IUCN-The World Conservation Union, Food and Agriculture Organization of the United Nations and other sources.

Logic: The percent of mammals threatened gives an estimate of a country's success at preserving its biodiversity.

Details: Number of mammal species threatened divided by known mammal species in the country, expressed as a percentage. A logarithmic transformation of this variable was used in calculating the ESI.

Median: 9.49 **Minimum:** 1.00 **Maximum:** 100

Albania	2.94	Greece	13.68	Norway	7.41
Algeria	16.30	Guatemala	3.20	Pakistan	8.61
Argentina	8.44	Haiti	100.00	Panama	7.80
Armenia	4.76	Honduras	4.05	Papua New Guinea	25.68
Australia	22.31	Hungary	9.64	Paraguay	3.28
Austria	8.43	Iceland	9.09	Peru	10.00
Azerbaijan	11.11	India	23.73	Philippines	31.01
Bangladesh	16.51	Indonesia	28.01	Poland	11.90
Belarus	5.41	Iran	14.29	Portugal	20.63
Belgium	10.34	Ireland	8.00	Romania	19.05
Benin	4.79	Israel	11.21	Russian Federation	11.52
Bhutan	20.20	Italy	11.11	Rwanda	5.96
Bolivia	7.59	Jamaica	16.67	Saudi Arabia	11.69
Botswana	3.05	Japan	15.43	Senegal	6.77
Brazil	17.03	Jordan	9.86	Singapore	7.06
Bulgaria	16.05	Kazakhstan	8.43	Slovak Republic	9.41
Burkina Faso	4.08	Kenya	11.98	Slovenia	13.33
Burundi	4.67	Korea, South	12.24	South Africa	12.94
Cameroon	7.82	Kuwait	4.76	Spain	23.17
Canada	3.63	Kyrgyz Republic	7.23	Sri Lanka	15.91
Central African Republic	5.26	Latvia	4.82	Sudan	7.87
Chile	17.58	Lebanon	8.77	Sweden	8.33
China	18.75	Libya	14.47	Switzerland	8.00
Colombia	9.75	Lithuania	7.35	Syria	6.35
Costa Rica	6.83	Macedonia	12.82	Tanzania	10.44
Croatia	13.16	Madagascar	32.62	Thailand	12.83
Cuba	29.03	Malawi	3.59	Togo	4.08
Czech Republic	8.64	Malaysia	14.00	Trinidad and Tobago	1.00
Denmark	6.98	Mali	9.49	Tunisia	14.10
Dominican Republic	20.00	Mauritius		Turkey	12.93
Ecuador	9.27	Mexico	13.03	Uganda	5.33
Egypt	15.31	Moldova	2.94	Ukraine	13.89
El Salvador	1.48	Mongolia	9.02	United Kingdom	8.00
Estonia	6.15	Morocco	17.14	United States	8.10
Ethiopia	13.73	Mozambique	7.26	Uruguay	6.17
Fiji	100.00	Nepal	15.47	Uzbekistan	7.22
Finland	6.67	Netherlands	10.91	Venezuela	7.43
France	13.98	New Zealand	100.00	Vietnam	17.84
Gabon	6.32	Nicaragua	2.00	Zambia	4.72
Germany	10.53	Niger	8.40	Zimbabwe	3.33
Ghana	5.86	Nigeria	9.49		

Environmental Systems

Biodiversity

Variable Name: Percentage of Breeding Birds Threatened

Variable Code: PRTBRD **Variable Number:** 11

Units: Percent of Breeding Birds

Reference Year: 1996

Source: World Resources Institute, *World Resources 2000-2001*, Washington, DC: WRI, 2000. Original sources: World Conservation Monitoring Center, IUCN-The World Conservation Union, Food and Agriculture Organization of the United Nations and other sources.

Logic: The percent of breeding birds threatened gives an estimate of a country's success at preserving its biodiversity.

Details: Number of bird species threatened divided by known bird species in the country, expressed as a percentage.

Median: 3.08 **Minimum:** 0.00 **Maximum:** 43.88

Albania	3.04	Greece	3.98	Norway	1.23
Algeria	4.17	Guatemala	0.87	Pakistan	6.67
Argentina	4.57	Haiti	14.67	Panama	1.37
Armenia	2.07	Honduras	0.95	Papua New Guinea	4.75
Australia	6.93	Hungary	4.88	Paraguay	4.68
Austria	2.35	Iceland	0.00	Peru	4.15
Azerbaijan	3.23	India	7.88	Philippines	43.88
Bangladesh	10.17	Indonesia	6.80	Poland	2.64
Belarus	1.81	Iran	4.33	Portugal	3.38
Belgium	1.67	Ireland	0.70	Romania	4.45
Benin	0.33	Israel	4.44	Russian Federation	6.05
Bhutan	3.13	Italy	2.99	Rwanda	1.17
Bolivia		Jamaica	6.19	Saudi Arabia	7.10
Botswana	1.81	Japan	13.20	Senegal	1.56
Brazil	6.87	Jordan	2.84	Singapore	7.63
Bulgaria	5.00	Kazakhstan	3.79	Slovak Republic	1.91
Burkina Faso	0.30	Kenya	2.83	Slovenia	1.45
Burundi	1.33	Korea, South	16.96	South Africa	2.68
Cameroon	2.03	Kuwait	15.00	Spain	3.60
Canada	1.17	Kyrgyz Republic		Sri Lanka	4.40
Central African Republic	0.37	Latvia	2.76	Sudan	1.32
Chile	6.08	Lebanon	3.25	Sweden	1.61
China	8.16	Libya	2.20	Switzerland	2.07
Colombia	3.76	Lithuania	1.98	Syria	3.43
Costa Rica	2.17	Macedonia	1.43	Tanzania	3.63
Croatia	1.79	Madagascar	13.86	Thailand	7.31
Cuba	9.49	Malawi	1.73	Togo	0.26
Czech Republic	3.02	Malaysia	6.69	Trinidad and Tobago	1.15
Denmark	1.02	Mali	1.51	Tunisia	3.47
Dominican Republic	8.09	Mauritius		Turkey	4.64
Ecuador	3.82	Mexico	4.66	Uganda	1.20
Egypt	7.19	Moldova	3.95	Ukraine	3.80
El Salvador	0.00	Mongolia	3.29	United Kingdom	0.87
Estonia	0.94	Morocco	5.24	United States	7.69
Ethiopia	3.19	Mozambique	2.81	Uruguay	4.64
Fiji	12.16	Nepal	4.42	Uzbekistan	
Finland	1.61	Netherlands	1.57	Venezuela	1.64
France	2.60	New Zealand	29.33	Vietnam	8.79
Gabon	0.86	Nicaragua	0.62	Zambia	1.65
Germany	2.09	Niger	0.67	Zimbabwe	1.69
Ghana	1.89	Nigeria	1.32		

Environmental Systems

Terrestrial Systems

Variable Name: Severity of Human Induced Soil Degradation

Variable Code: SOIL **Variable Number:** 12

Units: Index Ranging from 0 (Low Levels of Degradation) to 3.66 (High Levels)

Reference Year: 1990

Source: UNEP, Global Assessment of Human Induced Soil Degradation (GLASOD), database, 1990.

Logic: A measure of the degree of soil degradation within a country, which affects biological productivity and sedimentation of water bodies.

Details: The original data classify countries' territories into 4 classes of degradation. We calculated the fraction of each country's territory falling into each class, and then computed a single weighted composite, using the degradation class as the weight.

Median: 1.75 **Minimum:** 0.00 **Maximum:** 3.66

Albania	3.66	Greece	1.94	Norway	0.34
Algeria	1.06	Guatemala	2.26	Pakistan	1.66
Argentina	1.65	Haiti	3.10	Panama	2.66
Armenia		Honduras	2.62	Papua New Guinea	0.22
Australia	1.22	Hungary	2.51	Paraguay	0.94
Austria	2.37	Iceland		Peru	1.67
Azerbaijan		India	1.92	Philippines	2.04
Bangladesh	2.06	Indonesia	1.90	Poland	2.86
Belarus		Iran	2.52	Portugal	1.91
Belgium	2.57	Ireland	0.28	Romania	3.07
Benin	1.74	Israel	0.44	Russian Federation	
Bhutan	1.42	Italy	2.17	Rwanda	3.35
Bolivia	1.19	Jamaica	2.39	Saudi Arabia	1.63
Botswana	1.13	Japan	0.16	Senegal	2.12
Brazil	1.62	Jordan	2.43	Singapore	1.99
Bulgaria	2.94	Kazakhstan		Slovak Republic	
Burkina Faso	2.77	Kenya	1.84	Slovenia	
Burundi	3.21	Korea, South	2.23	South Africa	2.54
Cameroon	1.73	Kuwait	1.86	Spain	2.09
Canada	0.52	Kyrgyz Republic		Sri Lanka	2.51
Central African Republic	0.64	Latvia		Sudan	1.40
Chile	1.05	Lebanon	1.48	Sweden	1.57
China	1.83	Libya	1.28	Switzerland	1.73
Colombia	1.43	Lithuania		Syria	2.70
Costa Rica	3.42	Macedonia		Tanzania	1.63
Croatia		Madagascar	2.80	Thailand	3.22
Cuba	1.79	Malawi	0.97	Togo	2.49
Czech Republic		Malaysia	2.76	Trinidad and Tobago	1.59
Denmark	0.47	Mali	1.40	Tunisia	2.27
Dominican Republic	2.16	Mauritius	0.79	Turkey	3.21
Ecuador	1.30	Mexico	1.76	Uganda	2.27
Egypt	0.58	Moldova		Ukraine	
El Salvador	2.39	Mongolia	1.75	United Kingdom	1.48
Estonia		Morocco	2.06	United States	1.72
Ethiopia	2.30	Mozambique	1.08	Uruguay	0.75
Fiji	0.00	Nepal	1.51	Uzbekistan	
Finland	1.26	Netherlands	1.40	Venezuela	1.32
France	1.47	New Zealand	1.51	Vietnam	3.20
Gabon	0.39	Nicaragua	2.31	Zambia	1.59
Germany		Niger	1.55	Zimbabwe	1.29
Ghana	1.67	Nigeria	2.36		

Environmental Systems

Terrestrial Systems

Variable Name: Land Area Impacted by Human Activities as a Percentage of Total Land Area

Variable Code: ANTHRO **Variable Number:** 13

Units: Percent of Land Area

Reference Year: 1992/93 (agriculture) and October 1994 to March 1995 (lit area)

Source: NOAA/NGDC World Stable Lights Images - October 1994 to March 1995. Derived from DMSP OLS Nighttime Imagery during the dark half of each lunar cycle. 30 Arc Second Grid and USGS EDCDAAC Version 2.0 Global Land Cover Characteristics Data Base (USGS legend)

Logic: Agricultural activities and the built environment have high impacts on the natural environment. The clearing of natural vegetation for anthropogenic activity has important ecological implications.

Details: This variable measures urbanized (as indicated by lights at night) and agricultural area as a percentage of a country's total area. A complete description of the methodology is included in the main report.

Median: 33.91 **Minimum:** 0.98 **Maximum:** 100

Albania	81.19	Greece	65.65	Norway	14.82
Algeria	2.23	Guatemala	35.70	Pakistan	30.03
Argentina	32.90	Haiti	43.29	Panama	34.32
Armenia	57.09	Honduras	37.39	Papua New Guinea	7.65
Australia	7.07	Hungary	88.47	Paraguay	14.65
Austria	46.41	Iceland	2.81	Peru	8.12
Azerbaijan	67.35	India	69.56	Philippines	85.03
Bangladesh	74.77	Indonesia	29.56	Poland	91.20
Belarus	95.81	Iran	13.78	Portugal	57.92
Belgium	97.88	Ireland	92.47	Romania	70.61
Benin	4.02	Israel	50.77	Russian Federation	16.02
Bhutan	5.76	Italy	65.62	Rwanda	47.42
Bolivia	9.31	Jamaica	31.34	Saudi Arabia	4.14
Botswana	20.46	Japan	41.93	Senegal	18.20
Brazil	26.44	Jordan	7.84	Singapore	100.00
Bulgaria	74.55	Kazakhstan	29.26	Slovak Republic	63.93
Burkina Faso	14.52	Kenya	20.49	Slovenia	47.03
Burundi	60.83	Korea, South	43.24	South Africa	40.69
Cameroon	20.97	Kuwait	27.61	Spain	68.37
Canada	8.51	Kyrgyz Republic	27.89	Sri Lanka	83.54
Central African Republic	12.82	Latvia	75.31	Sudan	5.39
Chile	10.27	Lebanon	64.15	Sweden	16.52
China	30.06	Libya	0.98	Switzerland	51.01
Colombia	18.90	Lithuania	87.90	Syria	27.03
Costa Rica	33.47	Macedonia	71.22	Tanzania	38.79
Croatia	57.28	Madagascar	13.48	Thailand	62.99
Cuba	46.56	Malawi	29.09	Togo	12.11
Czech Republic	79.98	Malaysia	28.70	Trinidad and Tobago	34.82
Denmark	91.28	Mali	2.90	Tunisia	15.82
Dominican Republic	29.98	Mauritius		Turkey	57.16
Ecuador	27.35	Mexico	21.94	Uganda	35.26
Egypt	4.72	Moldova	94.14	Ukraine	89.43
El Salvador	70.09	Mongolia	2.47	United Kingdom	87.75
Estonia	71.89	Morocco	6.63	United States	31.86
Ethiopia	15.75	Mozambique	37.80	Uruguay	58.18
Fiji	5.66	Nepal	46.17	Uzbekistan	28.46
Finland	14.61	Netherlands	92.41	Venezuela	14.25
France	82.83	New Zealand	11.60	Vietnam	56.63
Gabon	8.84	Nicaragua	35.54	Zambia	33.91
Germany	85.01	Niger	1.46	Zimbabwe	54.87
Ghana	23.37	Nigeria	20.62		

Reducing Stresses**Variable Name:** NOx Emissions per Populated Land Area**Variable Code:** NOXKM **Variable Number:** 14**Units:** Metric Tons/Populated Land Area**Reference Year:** 1990**Source:** RIVM, Emission Database for Global Atmospheric Research (EDGAR)-version 2.0, 1996**Logic:** Indicator of air pollution: emissions contribute to declines in air quality.

Details: The gridded emissions data, originally available as 1by1 degree cells (approximately 100 km by 100 km at the equator, decreasing to approximately 100 km by 50 km at a latitude of 60 degrees), were summarized at the country level to give the total emissions for each country. Air pollution is generally greatest in densely populated areas. To take this into account, we used the Gridded Population of the World dataset available from CIESIN and calculated the total land area in each country inhabited with a population density of greater than 5 persons per sq. km. We then utilized this land area as the denominator for the emissions data. A logarithmic transformation of this variable was used in calculating the ESI.

Median: 0.51 **Minimum:** 0.03 **Maximum:** 12.06

Albania	0.76
Algeria	0.22
Argentina	0.12
Armenia	3.43
Australia	2.09
Austria	2.13
Azerbaijan	1.38
Bangladesh	1.68
Belarus	0.79
Belgium	10.42
Benin	0.42
Bhutan	0.06
Bolivia	0.18
Botswana	1.98
Brazil	0.32
Bulgaria	1.11
Burkina Faso	0.15
Burundi	1.43
Cameroon	0.22
Canada	1.39
Central African Republic	0.49
Chile	0.19
China	0.49
Colombia	0.24
Costa Rica	0.23
Croatia	2.94
Cuba	0.32
Czech Republic	2.50
Denmark	7.19
Dominican Republic	0.26
Ecuador	0.35
Egypt	1.18
El Salvador	0.47
Estonia	0.74
Ethiopia	0.15
Fiji	0.09
Finland	0.86
France	1.77
Gabon	0.15
Germany	2.79
Ghana	0.38

Greece	1.39
Guatemala	0.33
Haiti	0.26
Honduras	0.19
Hungary	1.34
Iceland	2.00
India	0.51
Indonesia	0.43
Iran	0.14
Ireland	0.72
Israel	3.13
Italy	1.79
Jamaica	0.56
Japan	3.57
Jordan	0.74
Kazakhstan	0.23
Kenya	0.29
Korea, South	5.06
Kuwait	2.58
Kyrgyz Republic	0.47
Latvia	0.72
Lebanon	2.90
Libya	0.98
Lithuania	1.20
Macedonia	1.06
Madagascar	0.08
Malawi	0.55
Malaysia	0.54
Mali	0.12
Mauritius	0.86
Mexico	0.40
Moldova	2.72
Mongolia	0.23
Morocco	0.16
Mozambique	0.15
Nepal	0.23
Netherlands	12.06
New Zealand	0.31
Nicaragua	0.16
Niger	0.13
Nigeria	0.28

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Norway	0.78
Pakistan	0.25
Panama	0.20
Papua New Guinea	0.03
Paraguay	0.46
Peru	0.07
Philippines	0.73
Poland	1.08
Portugal	1.11
Romania	0.97
Russian Federation	0.44
Rwanda	2.00
Saudi Arabia	0.18
Senegal	0.35
Singapore	
Slovak Republic	2.53
Slovenia	2.43
South Africa	0.63
Spain	0.75
Sri Lanka	0.32
Sudan	0.15
Sweden	0.63
Switzerland	3.44
Syria	0.43
Tanzania	0.23
Thailand	0.54
Togo	0.51
Trinidad and Tobago	2.24
Tunisia	0.26
Turkey	0.52
Uganda	0.36
Ukraine	1.17
United Kingdom	4.03
United States	1.79
Uruguay	0.25
Uzbekistan	0.69
Venezuela	0.44
Vietnam	0.46
Zambia	0.34
Zimbabwe	0.21

Reducing Stresses

Variable Name: SO2 Emissions per Populated Land Area

Variable Code: SO2KM **Variable Number:** 15

Units: Metric Tons/Populated Land Area

Reference Year: 1990

Source: RIVM, Emission Database for Global Atmospheric Research (EDGAR)-version 2.0, 1996

Logic: Indicator of air pollution: emissions contribute to declines in air quality.

Details: The gridded emissions data, originally available as 1x1 degree cells (approximately 100 km by 100 km at the equator, decreasing to approximately 100 km by 50 km at a latitude of 60 degrees), were summarized at the country level to give the total emissions for each country. Air pollution is generally greatest in densely populated areas. To take this into account, we used the Gridded Population of the World dataset available from CIESIN and calculated the total land area in each country inhabited with a population density of greater than 5 persons per sq. km. We then utilized this land area as the denominator for the emissions data.

Median: 1.17 **Minimum:** 0.02 **Maximum:** 59.12

Albania	8.36
Algeria	0.19
Argentina	0.09
Armenia	11.17
Australia	3.85
Austria	5.90
Azerbaijan	3.90
Bangladesh	1.22
Belarus	2.15
Belgium	37.84
Benin	0.15
Bhutan	0.05
Bolivia	0.06
Botswana	1.29
Brazil	0.26
Bulgaria	10.83
Burkina Faso	0.05
Burundi	0.48
Cameroon	0.08
Canada	3.02
Central African Republic	0.17
Chile	3.67
China	2.15
Colombia	0.15
Costa Rica	0.21
Croatia	9.00
Cuba	1.30
Czech Republic	35.15
Denmark	12.86
Dominican Republic	0.51
Ecuador	0.24
Egypt	2.92
El Salvador	0.43
Estonia	2.39
Ethiopia	0.06
Fiji	0.15
Finland	2.62
France	3.81
Gabon	0.07
Germany	9.55

Ghana	0.13
Greece	8.21
Guatemala	0.22
Haiti	0.30
Honduras	0.14
Hungary	7.15
Iceland	1.54
India	0.70
Indonesia	0.68
Iran	0.35
Ireland	1.92
Israel	8.24
Italy	4.10
Jamaica	14.19
Japan	4.02
Jordan	1.65
Kazakhstan	1.17
Kenya	0.12
Korea, South	25.50
Kuwait	2.81
Kyrgyz Republic	2.16
Latvia	1.90
Lebanon	5.89
Libya	1.61
Lithuania	3.22
Macedonia	6.24
Madagascar	0.03
Malawi	0.19
Malaysia	0.87
Mali	0.04
Mauritius	2.08
Mexico	0.68
Moldova	7.70
Mongolia	0.63
Morocco	0.38
Mozambique	0.06
Nepal	0.19
Netherlands	59.12
New Zealand	0.41
Nicaragua	0.11

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Niger	0.05
Nigeria	0.11
Norway	1.19
Pakistan	0.24
Panama	0.23
Papua New Guinea	0.02
Paraguay	0.20
Peru	0.17
Philippines	1.82
Poland	6.59
Portugal	3.50
Romania	4.08
Russian Federation	1.40
Rwanda	0.69
Saudi Arabia	0.25
Senegal	0.15
Singapore	
Slovak Republic	16.39
Slovenia	8.12
South Africa	1.26
Spain	1.82
Sri Lanka	0.14
Sudan	0.06
Sweden	1.30
Switzerland	2.59
Syria	0.86
Tanzania	0.08
Thailand	0.76
Togo	0.19
Trinidad and Tobago	0.76
Tunisia	0.94
Turkey	1.57
Uganda	0.13
Ukraine	3.39
United Kingdom	8.95
United States	2.48
Uruguay	0.19
Uzbekistan	2.43
Venezuela	0.27
Vietnam	0.77

Reducing Stresses**Variable Name:** VOCs emissions per populated land area**Variable Code:** VOCKM **Variable Number:** 16**Units:** Metric Tons/Populated Land Area**Reference Year:** 1990**Source:** RIVM, Emission Database for Global Atmospheric Research (EDGAR)-version 2.0, 1996**Logic:** Indicator of air pollution: emissions contribute to declines in air quality.

Details: The gridded emissions data, originally available as 1x1 degree cells (approximately 100 km by 100 km at the equator, decreasing to approximately 100 km North-South side by 50 km East-West side at a latitude of 60 degrees), were summarized at the country level to give the total emissions for each country. Air pollution is generally greatest in densely populated areas. To take this into account, we used the Gridded Population of the World dataset available from CIESIN and calculated the total land area in each country inhabited with a population density of greater than 5 persons per sq. km. We then utilized this land area as the denominator for the emissions data. A logarithmic transformation of this variable was used in calculating the ESI.

Median: 3.30 **Minimum:** 0.25 **Maximum:** 60.53

Albania	3.30	Ghana	2.99	Niger	1.05
Algeria	2.45	Greece	5.59	Nigeria	5.15
Argentina	0.79	Guatemala	4.02	Norway	2.24
Armenia	8.36	Haiti	5.05	Pakistan	2.50
Australia	6.33	Honduras	1.83	Panama	1.35
Austria	6.88	Hungary	6.24	Papua New Guinea	0.25
Azerbaijan	4.46	Iceland	6.39	Paraguay	3.39
Bangladesh	20.78	India	4.87	Peru	0.77
Belarus	2.25	Indonesia	4.73	Philippines	7.22
Belgium	23.06	Iran	1.56	Poland	2.38
Benin	5.54	Ireland	2.15	Portugal	2.99
Bhutan	0.80	Israel	9.34	Romania	3.35
Bolivia	1.24	Italy	4.92	Russian Federation	2.52
Botswana	10.39	Jamaica	3.20	Rwanda	21.06
Brazil	1.89	Japan	14.23	Saudi Arabia	5.79
Bulgaria	3.92	Jordan	2.48	Senegal	2.10
Burkina Faso	1.23	Kazakhstan	0.86	Singapore	
Burundi	14.66	Kenya	3.01	Slovak Republic	7.17
Cameroon	2.05	Korea, South	14.31	Slovenia	9.38
Canada	5.94	Kuwait	60.53	South Africa	1.81
Central African Republic	3.55	Kyrgyz Republic	1.65	Spain	2.40
Chile	1.10	Latvia	2.31	Sri Lanka	4.05
China	2.49	Lebanon	14.76	Sudan	1.47
Colombia	2.78	Libya	20.13	Sweden	1.71
Costa Rica	1.49	Lithuania	3.39	Switzerland	9.25
Croatia	11.41	Macedonia	3.82	Syria	3.16
Cuba	1.23	Madagascar	0.78	Tanzania	2.08
Czech Republic	7.29	Malawi	4.78	Thailand	3.60
Denmark	25.10	Malaysia	5.47	Togo	4.33
Dominican Republic	2.13	Mali	0.81	Trinidad and Tobago	18.11
Ecuador	4.05	Mauritius	8.27	Tunisia	1.72
Egypt	8.90	Mexico	2.78	Turkey	2.21
El Salvador	5.07	Moldova	6.47	Uganda	3.38
Estonia	1.54	Mongolia	0.88	Ukraine	3.30
Ethiopia	1.27	Morocco	0.77	United Kingdom	13.50
Fiji	0.83	Mozambique	1.24	United States	3.53
Finland	1.71	Nepal	4.04	Uruguay	1.42
France	5.27	Netherlands	31.63	Uzbekistan	1.84
Gabon	2.47	New Zealand	1.32	Venezuela	4.98
Germany	8.62	Nicaragua	1.24	Vietnam	4.73

Reducing Stresses

Variable Name: Coal Consumption per Populated Land Area

Variable Code: COALKM **Variable Number:** 17

Units: Billion Btu/Populated Land Area

Reference Year: 1998

Source: US Energy Information Agency, available at <http://www.eia.doe.gov/emeu/international/contents.html>

Logic: Coal fired power plants emit higher levels of SO₂ and other air pollutants than natural gas or oil fired plants, and the energy produced is more carbon-intensive.

Details: Air pollution is generally greatest in densely populated areas. To take this into account, we used the Gridded Population of the World dataset available from CIESIN and calculated the total land area in each country inhabited with a population density of greater than 5 persons per sq. km. We then utilized this land area as the denominator for the coal consumption data. A logarithmic transformation of this variable was used in calculating the ESI.

Median: 0.28 **Minimum:** 0.01 **Maximum:** 15.43

Reducing Air Pollution

Albania	0.01	Greece	2.57	Norway	0.38
Algeria	0.06	Guatemala		Pakistan	0.12
Argentina	0.02	Haiti		Panama	0.03
Armenia		Honduras		Papua New Guinea	
Australia	7.20	Hungary	1.84	Paraguay	0.01
Austria	1.55	Iceland	1.55	Peru	0.02
Azerbaijan		India	2.31	Philippines	0.38
Bangladesh		Indonesia	0.27	Poland	7.51
Belarus	0.07	Iran	0.03	Portugal	1.22
Belgium	10.70	Ireland	1.11	Romania	1.22
Benin		Israel	13.31	Russian Federation	1.07
Bhutan	0.01	Italy	1.55	Rwanda	
Bolivia		Jamaica	0.18	Saudi Arabia	
Botswana	0.49	Japan	7.82	Senegal	
Brazil	0.14	Jordan		Singapore	0.06
Bulgaria	2.95	Kazakhstan	0.67	Slovak Republic	3.96
Burkina Faso		Kenya	0.01	Slovenia	3.57
Burundi		Korea, South	15.43	South Africa	5.50
Cameroon		Kuwait		Spain	1.33
Canada	2.32	Kyrgyz Republic	0.11	Sri Lanka	
Central African Republic		Latvia	0.12	Sudan	
Chile	0.43	Lebanon	0.56	Sweden	0.34
China	3.86	Libya		Switzerland	0.05
Colombia	0.22	Lithuania	0.07	Syria	
Costa Rica	0.01	Macedonia	2.32	Tanzania	
Croatia	0.23	Madagascar		Thailand	0.57
Cuba	0.02	Malawi	0.02	Togo	
Czech Republic	12.04	Malaysia	0.19	Trinidad and Tobago	
Denmark	3.16	Mali		Tunisia	0.03
Dominican Republic	0.08	Mauritius	1.10	Turkey	1.00
Ecuador		Mexico	0.18	Uganda	
Egypt	0.37	Moldova	0.25	Ukraine	3.22
El Salvador		Mongolia	0.60	United Kingdom	5.81
Estonia	0.29	Morocco	0.28	United States	4.89
Ethiopia		Mozambique		Uruguay	
Fiji	0.03	Nepal	0.02	Uzbekistan	0.09
Finland	0.82	Netherlands	10.67	Venezuela	
France	1.06	New Zealand	0.56	Vietnam	0.51
Gabon		Nicaragua		Zambia	0.01
Germany	8.76	Niger	0.01	Zimbabwe	0.38
Ghana		Nigeria			

Reducing Stresses

Variable Name: Vehicles Per Populated Land Area

Variable Code: CARSKM

Variable Number: 18

Units: Vehicles/Populated Land Area

Reference Year: MRYA 1996-1998

Source: World Bank, World Development Indicators 2000

Logic: Proxy for environmental impacts associated with production, use and disposal of motor vehicles and the transportation infrastructure that supports them.

Details: Air pollution is generally greatest in densely populated areas. To take this into account, we used the Gridded Population of the World dataset available from CIESIN and calculated the total land area in each country inhabited with a population density of greater than 5 persons per sq. km. We then utilized this land area as the denominator for the vehicles data. A logarithmic transformation of this variable was used in calculating the ESI.

Median: 5.26 **Minimum:** 0.01 **Maximum:** 1041.12.

Reducing Air Pollution

Albania	4.57
Algeria	4.11
Argentina	4.54
Armenia	0.19
Australia	48.23
Austria	50.97
Azerbaijan	4.17
Bangladesh	0.94
Belarus	5.60
Belgium	149.66
Benin	0.42
Bhutan	0.08
Bolivia	0.89
Botswana	1.54
Brazil	3.94
Bulgaria	19.11
Burkina Faso	0.22
Burundi	
Cameroon	0.43
Canada	33.63
Central African Republic	0.01
Chile	5.21
China	1.74
Colombia	2.66
Costa Rica	9.53
Croatia	
Cuba	3.26
Czech Republic	53.52
Denmark	51.16
Dominican Republic	7.55
Ecuador	3.60
Egypt	16.98
El Salvador	17.49
Estonia	12.74
Ethiopia	0.10
Fiji	3.15
Finland	15.19
France	56.34
Gabon	0.34
Germany	
Ghana	0.61

Greece	26.89
Guatemala	2.12
Haiti	2.07
Honduras	2.39
Hungary	29.48
Iceland	106.51
India	2.21
Indonesia	2.90
Iran	1.42
Ireland	16.66
Israel	76.64
Italy	115.24
Jamaica	11.15
Japan	187.46
Jordan	7.78
Kazakhstan	1.07
Kenya	1.34
Korea, South	104.45
Kuwait	44.91
Kyrgyz Republic	0.77
Latvia	9.40
Lebanon	
Libya	30.23
Lithuania	16.80
Macedonia	12.21
Madagascar	0.16
Malawi	0.51
Malaysia	10.99
Mali	0.11
Mauritius	70.72
Mexico	10.42
Moldova	8.65
Mongolia	0.90
Morocco	4.11
Mozambique	0.02
Nepal	
Netherlands	193.80
New Zealand	27.08
Nicaragua	1.33
Niger	0.19
Nigeria	2.99

Norway	19.13
Pakistan	1.46
Panama	5.04
Papua New Guinea	0.27
Paraguay	0.78
Peru	1.39
Philippines	7.43
Poland	34.69
Portugal	37.68
Romania	13.17
Russian Federation	5.71
Rwanda	0.79
Saudi Arabia	3.89
Senegal	0.64
Singapore	1,041.12
Slovak Republic	28.27
Slovenia	43.63
South Africa	7.72
Spain	37.06
Sri Lanka	9.70
Sudan	0.21
Sweden	18.44
Switzerland	94.59
Syria	2.23
Tanzania	0.16
Thailand	12.04
Togo	2.14
Trinidad and Tobago	26.85
Tunisia	6.03
Turkey	6.70
Uganda	0.42
Ukraine	8.24
United Kingdom	106.38
United States	47.02
Uruguay	4.29
Uzbekistan	
Venezuela	5.26
Vietnam	
Zambia	0.53
Zimbabwe	0.98

Reducing Stresses

Variable Name: Fertilizer Consumption per Hectare of Arable Land

Variable Code: FERTHA **Variable Number:** 19

Units: Hundreds Grams/Hectare of Arable Land

Reference Year: 1997

Source: World Bank, World Development Indicators 2000

Logic: Excessive use of fertilizers from agricultural activities has a negative impact on soil and water, altering chemistry and levels of nutrients and leading to eutrophication problems.

Details: A logarithmic transformation of this variable was used in calculating the ESI.

Median: 788.92 **Minimum:** 1.19 **Maximum:** 32133.33

Reducing Water Stress

Albania	88.39
Algeria	128.90
Argentina	332.88
Armenia	161.94
Australia	427.42
Austria	1,664.28
Azerbaijan	135.77
Bangladesh	1,354.75
Belarus	1,190.28
Belgium	4,166.67
Benin	256.33
Bhutan	7.14
Bolivia	67.52
Botswana	109.33
Brazil	1,030.17
Bulgaria	439.80
Burkina Faso	125.60
Burundi	59.74
Cameroon	56.21
Canada	604.35
Central African Republic	1.55
Chile	2,194.75
China	2,898.88
Colombia	2,885.95
Costa Rica	9,017.91
Croatia	1,776.23
Cuba	552.81
Czech Republic	1,015.19
Denmark	1,882.45
Dominican Republic	955.88
Ecuador	1,064.80
Egypt	3,565.63
El Salvador	1,633.63
Estonia	237.59
Ethiopia	133.79
Fiji	960.00
Finland	1,453.43
France	2,770.83
Gabon	6.15
Germany	2,414.54
Ghana	74.95

Greece	1,792.42
Guatemala	1,571.22
Haiti	173.21
Honduras	781.71
Hungary	891.32
Iceland	32,133.33
India	999.99
Indonesia	1,372.83
Iran	649.25
Ireland	5,026.06
Israel	3,410.26
Italy	2,222.62
Jamaica	1,258.62
Japan	3,856.96
Jordan	890.00
Kazakhstan	42.17
Kenya	333.25
Korea, South	5,257.54
Kuwait	2,000.00
Kyrgyz Republic	229.63
Latvia	216.67
Lebanon	3,344.72
Libya	340.50
Lithuania	466.06
Macedonia	766.83
Madagascar	36.97
Malawi	358.36
Malaysia	6,593.41
Mali	103.78
Mauritius	3,645.60
Mexico	636.11
Moldova	678.25
Mongolia	15.16
Morocco	347.35
Mozambique	22.03
Nepal	375.78
Netherlands	5,566.67
New Zealand	4,443.73
Nicaragua	201.25
Niger	19.02
Nigeria	48.76

Norway	2,308.20
Pakistan	1,264.30
Panama	672.00
Papua New Guinea	2,166.67
Paraguay	154.55
Peru	470.81
Philippines	1,582.79
Poland	1,140.54
Portugal	1,110.08
Romania	338.71
Russian Federation	132.51
Rwanda	4.71
Saudi Arabia	883.24
Senegal	102.69
Singapore	20,630.00
Slovak Republic	796.14
Slovenia	3,202.25
South Africa	507.75
Spain	1,437.19
Sri Lanka	2,428.87
Sudan	46.35
Sweden	1,104.17
Switzerland	2,509.52
Syria	772.07
Tanzania	174.10
Thailand	865.55
Togo	67.15
Trinidad and Tobago	1,413.33
Tunisia	329.31
Turkey	686.90
Uganda	1.19
Ukraine	268.32
United Kingdom	3,299.37
United States	1,141.83
Uruguay	1,022.22
Uzbekistan	1,229.05
Venezuela	1,121.21
Vietnam	2,773.29
Zambia	111.13
Zimbabwe	587.66

Reducing Stresses

Variable Name: Pesticide Use per Hectare of Crop Land

Variable Code: PESTHA Variable Number: 20

Units: Kg/Hectare of Cropland

Reference Year: 1996

Source: World Resource Institute, *World Resources 2000-2001*, Washington, DC: WRI, 2000.

Logic: Excessive use of pesticides in agricultural activities has a negative impact on soil, water, humans and wildlife.

Details:

Median: 1217.5 Minimum: 1 Maximum: 19288.

Reducing Water Stress

Albania	435.00
Algeria	835.00
Argentina	1,266.00
Armenia	
Australia	2,535.00
Austria	2,710.00
Azerbaijan	
Bangladesh	176.00
Belarus	
Belgium	
Benin	
Bhutan	670.00
Bolivia	1,514.00
Botswana	40.00
Brazil	836.00
Bulgaria	966.00
Burkina Faso	1.00
Burundi	268.00
Cameroon	253.00
Canada	644.00
Central African Republic	12.00
Chile	3,240.00
China	
Colombia	6,134.00
Costa Rica	18,726.00
Croatia	3,060.00
Cuba	
Czech Republic	1,169.00
Denmark	2,200.00
Dominican Republic	
Ecuador	1,696.00
Egypt	1,293.00
El Salvador	2,642.00
Estonia	105.00
Ethiopia	34.00
Fiji	2,333.00
Finland	410.00
France	
Gabon	
Germany	2,085.00
Ghana	2,333.00

Greece	
Guatemala	574.00
Haiti	23.00
Honduras	6,521.00
Hungary	2,863.00
Iceland	
India	436.00
Indonesia	88.00
Iran	1,881.00
Ireland	
Israel	
Italy	19,288.00
Jamaica	
Japan	
Jordan	1,495.00
Kazakhstan	
Kenya	
Korea, South	13,829.00
Kuwait	
Kyrgyz Republic	1,860.00
Latvia	208.00
Lebanon	
Libya	
Lithuania	312.00
Macedonia	7,718.00
Madagascar	28.00
Malawi	
Malaysia	5,982.00
Mali	136.00
Mauritius	
Mexico	
Moldova	1,434.00
Mongolia	
Morocco	
Mozambique	
Nepal	21.00
Netherlands	11,842.00
New Zealand	2,215.00
Nicaragua	357.00
Niger	
Nigeria	

Norway	941.00
Pakistan	365.00
Panama	
Papua New Guinea	1,750.00
Paraguay	1,542.00
Peru	
Philippines	
Poland	490.00
Portugal	2,584.00
Romania	1,617.00
Russian Federation	407.00
Rwanda	260.00
Saudi Arabia	
Senegal	183.00
Singapore	
Slovak Republic	4,148.00
Slovenia	6,389.00
South Africa	57.00
Spain	
Sri Lanka	6,271.00
Sudan	106.00
Sweden	509.00
Switzerland	4,576.00
Syria	
Tanzania	
Thailand	1,116.00
Togo	95.00
Trinidad and Tobago	11,827.00
Tunisia	
Turkey	1,145.00
Uganda	17.00
Ukraine	2,001.00
United Kingdom	4,745.00
United States	1,599.00
Uruguay	1,316.00
Uzbekistan	
Venezuela	1,403.00
Vietnam	
Zambia	317.00
Zimbabwe	531.00

Reducing Stresses

Variable Name: Industrial Organic Pollutants per available freshwater

Variable Code: BODWAT **Variable Number:** 21

Units: Kg of Biochemical Oxygen Demand (BOD) Emissions/Cubic Km of Water

Reference Year: 1996

Source: World Bank, World Development Indicators 2000 and Center for Environmental Systems Research, University of Kassel, WaterGap 2.1, 2000

Logic: Emissions of organic pollutants from industrial activities cause water quality degradation. Given these considerations, BOD emissions have been normalized per amount of freshwater availability.

Details: These are modeled emissions data from the World Bank, measuring organic pollutants in terms of Biochemical Oxygen Demand (BOD).

Median: 892.38 **Minimum:** 30.72 **Maximum:** 18083.68

Reducing Water Stress

Albania	233.77
Algeria	8,580.76
Argentina	
Armenia	2,143.00
Australia	
Austria	876.85
Azerbaijan	
Bangladesh	
Belarus	
Belgium	
Benin	
Bhutan	
Bolivia	
Botswana	243.67
Brazil	
Bulgaria	422.52
Burkina Faso	
Burundi	
Cameroon	48.84
Canada	116.28
Central African Republic	
Chile	252.08
China	3,248.13
Colombia	36.68
Costa Rica	336.47
Croatia	322.67
Cuba	
Czech Republic	
Denmark	5,674.21
Dominican Republic	
Ecuador	91.96
Egypt	
El Salvador	910.26
Estonia	
Ethiopia	160.24
Fiji	
Finland	608.04
France	2,469.97
Gabon	
Germany	
Ghana	

Greece	1,273.13
Guatemala	
Haiti	
Honduras	
Hungary	1,118.41
Iceland	
India	892.38
Indonesia	324.63
Iran	
Ireland	666.54
Israel	18,083.68
Italy	
Jamaica	2,188.43
Japan	4,504.89
Jordan	15,225.22
Kazakhstan	
Kenya	
Korea, South	5,965.52
Kuwait	
Kyrgyz Republic	
Latvia	759.91
Lebanon	
Libya	
Lithuania	
Macedonia	4,697.95
Madagascar	
Malawi	
Malaysia	391.01
Mali	
Mauritius	17,424.19
Mexico	
Moldova	
Mongolia	
Morocco	7,691.03
Mozambique	30.72
Nepal	175.83
Netherlands	1,349.91
New Zealand	
Nicaragua	
Niger	
Nigeria	

Norway	188.19
Pakistan	
Panama	138.97
Papua New Guinea	
Paraguay	
Peru	
Philippines	691.06
Poland	5,669.83
Portugal	2,462.13
Romania	
Russian Federation	475.66
Rwanda	
Saudi Arabia	
Senegal	601.34
Singapore	
Slovak Republic	
Slovenia	1,216.60
South Africa	3,719.32
Spain	3,566.38
Sri Lanka	
Sudan	
Sweden	604.04
Switzerland	3,018.35
Syria	
Tanzania	
Thailand	
Togo	
Trinidad and Tobago	
Tunisia	11,451.51
Turkey	1,011.98
Uganda	
Ukraine	5,800.97
United Kingdom	3,571.12
United States	1,122.61
Uruguay	32.54
Uzbekistan	
Venezuela	68.63
Vietnam	
Zambia	
Zimbabwe	415.29

Reducing Stresses

Reducing Water Stress

Variable Name: Percentage of Country's Territory Under Severe Water Availability Stress

Variable Code: WATSTR

Variable Number: 22

Units: Percent of Land Area

Reference Year: 1961-1990 (avg.)

Source: Center for Environmental Systems Research, University of Kassel, WaterGAP 2.1B, 2001

Logic: The regional distribution of water availability relative to population and consumption needs is more important than its overall water availability. This variable captures the percent of the territory that is under water stress, which will affect the availability of water for environmental services and human well-being.

Details: These data are derived from the WaterGAP 2.1 gridded hydrological model developed by the Center for Environmental Systems Research, University of Kassel, Germany. The modelers identified grid cells in which water consumption exceeds 40 percent of the water available in that particular grid cell. These were then converted to land area equivalents, and the percentage of the territory under severe water stress was calculated.

Median: 4.5

Minimum: 0

Maximum: 100

Albania	19.50
Algeria	71.00
Argentina	23.30
Armenia	84.60
Australia	8.00
Austria	0.00
Azerbaijan	95.40
Bangladesh	22.10
Belarus	0.00
Belgium	93.90
Benin	0.00
Bhutan	0.00
Bolivia	14.00
Botswana	14.20
Brazil	0.30
Bulgaria	45.90
Burkina Faso	0.00
Burundi	0.00
Cameroon	0.00
Canada	0.90
Central African Republic	0.00
Chile	41.10
China	44.70
Colombia	1.00
Costa Rica	0.00
Croatia	0.00
Cuba	24.60
Czech Republic	0.00
Denmark	7.70
Dominican Republic	4.50
Ecuador	1.20
Egypt	88.10
El Salvador	0.00
Estonia	0.30
Ethiopia	24.70
Fiji	0.00
Finland	2.10
France	19.40
Gabon	0.00
Germany	1.10
Ghana	0.00

Greece	58.00
Guatemala	0.00
Haiti	0.00
Honduras	0.00
Hungary	0.00
Iceland	0.00
India	80.20
Indonesia	1.40
Iran	87.50
Ireland	0.00
Israel	100.00
Italy	26.30
Jamaica	0.00
Japan	9.50
Jordan	82.60
Kazakhstan	60.40
Kenya	1.10
Korea, South	49.80
Kuwait	97.70
Kyrgyz Republic	93.00
Latvia	0.00
Lebanon	82.10
Libya	83.70
Lithuania	0.40
Macedonia	91.60
Madagascar	1.70
Malawi	0.00
Malaysia	1.60
Mali	2.70
Mauritius	0.00
Mexico	43.80
Moldova	6.30
Mongolia	8.10
Morocco	81.50
Mozambique	13.60
Nepal	98.10
Netherlands	36.00
New Zealand	0.00
Nicaragua	0.30
Niger	40.50
Nigeria	17.80

Norway	0.40
Pakistan	76.30
Panama	0.00
Papua New Guinea	0.00
Paraguay	0.00
Peru	23.60
Philippines	10.40
Poland	0.00
Portugal	54.70
Romania	1.70
Russian Federation	3.80
Rwanda	0.00
Saudi Arabia	88.30
Senegal	5.00
Singapore	
Slovak Republic	0.00
Slovenia	0.00
South Africa	68.50
Spain	72.30
Sri Lanka	39.50
Sudan	31.10
Sweden	0.60
Switzerland	0.00
Syria	99.60
Tanzania	0.00
Thailand	0.60
Togo	0.00
Trinidad and Tobago	100.00
Tunisia	89.00
Turkey	61.70
Uganda	0.00
Ukraine	17.00
United Kingdom	21.00
United States	31.30
Uruguay	0.00
Uzbekistan	87.10
Venezuela	2.40
Vietnam	2.80
Zambia	0.00
Zimbabwe	16.20

Reducing Stresses

Variable Name: Percentage Change in Forest Cover 1990-1995

Variable Code: FOREST **Variable Number:** 23

Units: Percent Change

Reference Year: 1995

Source: Forest Resources Assessment Programme 2000, Working Paper 1, Rome 1998, Forest Department FAO. Originally published in the *State of the World's Forests 1997* (FAO, 1997).

Logic: When forests are lost or severely degraded, their capacity to function as regulators for the environment is also lost, increasing flood and erosion hazards, reducing soil fertility, and contributing to the loss of plant and animal life. As a result, the sustainable provision of goods and services from forests is jeopardized (Forest Resources Assessment).

Details: Values for Croatia, Czech Republic, Estonia, Hungary and Latvia disagreed with national reports so values were replaced with those from World Resources 2000-2001, FG1. The 1995 figures are the most current global data set on forest cover and forest cover change available according to the FAO. A logarithmic transformation of this variable was used in calculating the ESI.

Median: -0.02 **Minimum:** -0.33 **Maximum:** 0.14

Albania		Greece	0.12	Norway	0.02
Algeria	-0.06	Guatemala	-0.10	Pakistan	-0.14
Argentina	-0.01	Haiti	-0.16	Panama	-0.10
Armenia	0.14	Honduras	-0.11	Papua New Guinea	-0.02
Australia		Hungary	0.07	Paraguay	-0.12
Austria		Iceland		Peru	-0.02
Azerbaijan		India		Philippines	-0.16
Bangladesh	-0.04	Indonesia	-0.05	Poland	0.01
Belarus	0.05	Iran	-0.08	Portugal	0.04
Belgium		Ireland	0.14	Romania	
Benin	-0.06	Israel		Russian Federation	
Bhutan	-0.02	Italy		Rwanda	-0.01
Bolivia	-0.06	Jamaica	-0.31	Saudi Arabia	-0.04
Botswana	-0.02	Japan		Senegal	-0.03
Brazil	-0.02	Jordan	-0.12	Singapore	
Bulgaria		Kazakhstan	0.10	Slovak Republic	0.01
Burkina Faso	-0.04	Kenya	-0.01	Slovenia	
Burundi	-0.02	Korea, South	-0.01	South Africa	-0.01
Cameroon	-0.03	Kuwait		Spain	
Canada		Kyrgyz Republic		Sri Lanka	-0.05
Central African Republic	-0.02	Latvia		Sudan	-0.04
Chile	-0.02	Lebanon	-0.33	Sweden	
China		Libya		Switzerland	
Colombia	-0.02	Lithuania	0.03	Syria	-0.11
Costa Rica	-0.14	Macedonia		Tanzania	-0.05
Croatia		Madagascar	-0.04	Thailand	-0.12
Cuba	-0.06	Malawi	-0.08	Togo	-0.07
Czech Republic	0.04	Malaysia	-0.11	Trinidad and Tobago	-0.07
Denmark		Mali	-0.05	Tunisia	-0.03
Dominican Republic	-0.08	Mauritius		Turkey	
Ecuador	-0.08	Mexico	-0.04	Uganda	-0.05
Egypt		Moldova		Ukraine	
El Salvador	-0.15	Mongolia		United Kingdom	0.03
Estonia	0.02	Morocco	-0.02	United States	0.01
Ethiopia	-0.02	Mozambique	-0.03	Uruguay	
Fiji	-0.02	Nepal	-0.05	Uzbekistan	0.14
Finland		Netherlands		Venezuela	-0.05
France	0.06	New Zealand	0.03	Vietnam	-0.07
Gabon	-0.02	Nicaragua	-0.12	Zambia	-0.04
Germany		Niger		Zimbabwe	-0.03
Ghana	-0.06	Nigeria	-0.04		

Reducing Stresses

Reducing Ecosystem Stresses

Variable Name: Percentage of Country's territory with Acidification Exceedance

Variable Code: AC_EXC **Variable Number:** 24

Units: Percent Land Area

Reference Year: 1990

Source: Stockholm Environment Institute at York, Acidification in developing countries: ecosystem sensitivity and the critical loads approach at the global scale, 2000

Logic: Exceedance of critical SO₂ loading represents an indicator for ecosystems under stress due to acidification from anthropogenic sulphur deposition. Since it takes into account both the deposition and the ability of the ecosystem to respond to stress, it is a good indicator of the ecosystems' "sustainability".

Details: From a map of acidification exceedance, the areas at risk were summed within each country and then the percentage of a country at risk of exceedance was calculated. See the main report for more details on how the acidification exceedance map was produced.

Median: 0 **Minimum:** 0 **Maximum:** 97.48

Albania	2.54	Greece	2.77	Norway	15.96
Algeria	0.00	Guatemala	0.00	Pakistan	0.00
Argentina	0.00	Haiti	0.00	Panama	0.00
Armenia	0.00	Honduras	0.00	Papua New Guinea	0.00
Australia	0.00	Hungary	4.93	Paraguay	0.00
Austria	50.81	Iceland	0.00	Peru	0.00
Azerbaijan	0.00	India	0.00	Philippines	0.00
Bangladesh	0.00	Indonesia	8.15	Poland	53.45
Belarus	4.91	Iran	0.00	Portugal	3.24
Belgium	75.83	Ireland	54.16	Romania	19.27
Benin	0.00	Israel	0.00	Russian Federation	0.33
Bhutan	0.00	Italy	17.94	Rwanda	0.00
Bolivia	0.00	Jamaica	0.00	Saudi Arabia	0.00
Botswana	0.00	Japan	10.99	Senegal	0.00
Brazil	0.00	Jordan	0.00	Singapore	0.00
Bulgaria	14.10	Kazakhstan	0.00	Slovak Republic	27.23
Burkina Faso	0.00	Kenya	0.00	Slovenia	40.11
Burundi	0.00	Korea, South	58.90	South Africa	0.00
Cameroon	0.00	Kuwait	0.00	Spain	3.65
Canada	5.39	Kyrgyz Republic	0.00	Sri Lanka	0.00
Central African Republic	0.00	Latvia	1.95	Sudan	0.00
Chile	0.00	Lebanon	0.00	Sweden	34.37
China	15.66	Libya	0.00	Switzerland	36.90
Colombia	0.00	Lithuania	0.00	Syria	0.00
Costa Rica	0.00	Macedonia	97.48	Tanzania	0.00
Croatia	4.69	Madagascar	0.00	Thailand	0.27
Cuba	0.00	Malawi	0.00	Togo	0.00
Czech Republic	89.22	Malaysia	0.00	Trinidad and Tobago	0.00
Denmark	54.88	Mali	0.00	Tunisia	0.00
Dominican Republic	0.00	Mauritius	0.00	Turkey	0.02
Ecuador	0.00	Mexico	0.68	Uganda	0.00
Egypt	0.00	Moldova	0.00	Ukraine	4.27
El Salvador	0.00	Mongolia	0.00	United Kingdom	45.75
Estonia	0.00	Morocco	0.00	United States	13.74
Ethiopia	0.00	Mozambique	0.00	Uruguay	0.00
Fiji	0.00	Nepal	0.00	Uzbekistan	0.00
Finland	1.19	Netherlands	43.81	Venezuela	0.00
France	18.84	New Zealand	0.00	Vietnam	32.17
Gabon	0.00	Nicaragua	0.00	Zambia	5.13
Germany	51.88	Niger	0.00	Zimbabwe	0.00
Ghana	0.00	Nigeria	0.00		

Reducing Stresses

Reducing Waste and Consumption Pressures

Variable Name: Consumption Pressure per capita

Variable Code: PRESS **Variable Number:** 25

Units: Consumption as a Proportion of Global Average

Reference Year: 1996

Source: World Wide Fund for Nature, *Living Planet Report*. Gland, Switzerland: WWF, 1999.

Logic: Higher level of consumption pressure produce higher levels of environmental stress, both in terms of resource depletion and waste disposal.

Details: The Consumption Pressure Index was calculated using the same methodology used by WWF for the 1998 Living Planet report, but using only grain-equivalent, fish, wood-equivalent and cement consumption per person. For each commodity, a country's per capita average was divided by the the global per person average, giving a relative score. The relative scores for all the 4 components were then averaged to give the consumption pressure per person for that country.

Median: 0.89 **Minimum:** 0.30 **Maximum:** 5.70

Albania	0.56	Greece	1.41	Norway	2.47
Algeria	0.65	Guatemala	0.87	Pakistan	0.35
Argentina	0.86	Haiti	0.58	Panama	0.86
Armenia	0.39	Honduras	0.82	Papua New Guinea	1.39
Australia	1.53	Hungary	1.00	Paraguay	1.39
Austria	1.80	Iceland		Peru	0.78
Azerbaijan	0.30	India	0.44	Philippines	1.21
Bangladesh	0.46	Indonesia	0.99	Poland	1.17
Belarus	1.19	Iran	0.62	Portugal	2.33
Belgium		Ireland	1.59	Romania	0.78
Benin	0.92	Israel	1.87	Russian Federation	1.03
Bhutan	0.90	Italy	1.62	Rwanda	0.54
Bolivia	0.49	Jamaica	0.88	Saudi Arabia	1.17
Botswana	1.02	Japan	2.49	Senegal	1.02
Brazil	1.16	Jordan	0.82	Singapore	5.70
Bulgaria	0.75	Kazakhstan	0.77	Slovak Republic	0.86
Burkina Faso	0.65	Kenya	0.91	Slovenia	1.40
Burundi	0.59	Korea, South	2.62	South Africa	0.91
Cameroon	0.85	Kuwait	2.47	Spain	1.83
Canada	1.80	Kyrgyz Republic	0.40	Sri Lanka	0.74
Central African Republic	0.64	Latvia	2.04	Sudan	0.48
Chile	1.26	Lebanon	1.79	Sweden	1.87
China	1.11	Libya	1.12	Switzerland	1.55
Colombia	0.65	Lithuania	1.46	Syria	0.58
Costa Rica	1.24	Macedonia	0.78	Tanzania	0.89
Croatia	0.89	Madagascar	0.57	Thailand	1.45
Cuba	0.57	Malawi	0.69	Togo	0.72
Czech Republic	1.22	Malaysia	2.69	Trinidad and Tobago	0.64
Denmark	1.90	Mali	0.72	Tunisia	0.97
Dominican Republic	0.64	Mauritius	1.30	Turkey	1.12
Ecuador	0.97	Mexico	0.74	Uganda	0.63
Egypt	0.73	Moldova	0.32	Ukraine	0.66
El Salvador	0.74	Mongolia	0.50	United Kingdom	1.17
Estonia	1.55	Morocco	0.71	United States	2.10
Ethiopia	0.55	Mozambique	0.57	Uruguay	1.36
Fiji		Nepal	0.65	Uzbekistan	0.49
Finland	2.14	Netherlands	1.22	Venezuela	0.75
France	1.57	New Zealand	1.69	Vietnam	0.74
Gabon	1.22	Nicaragua	0.62	Zambia	1.10
Germany	1.45	Niger	0.52	Zimbabwe	0.65
Ghana	1.18	Nigeria	0.80		

Reducing Stresses

Reducing Waste and Consumption Pressures

Variable Name: Radioactive Waste

Variable Code: NUKE **Variable Number:** 26

Units: Standardized Scale (Z score)

Reference Year: 1996

Source: International Atomic Energy Agency, Waste Management Database, 1997

Logic: Radioactive waste, as a source of ionizing radiation, has long been recognized as a potential hazard to human health. Many practices in the fields of research, medicine, industry and generation of electricity generate waste that requires management to ensure the protection of human health and the environment now and in the future, without imposing undue burdens on future generations (The Principle of Radioactive Waste Management, IAEA, 1997).

Details: Two variables were initially available for Radioactive Waste: Accumulated Quantity (cubic meters) as generated and Accumulated Quantity (cubic meters) after treatment. We calculated the Z scores for the two variables, in order to make them comparable, and took the one available for each country. For the three countries (Australia, Canada and Czech Republic) which had both variables, we took the higher.

Median: -0.33 **Minimum:** -0.36 **Maximum:** 4.36

Albania	-0.33	Ghana		Niger	
Algeria		Greece		Nigeria	
Argentina	-0.35	Guatemala	-0.33	Norway	-0.35
Armenia		Haiti		Pakistan	
Australia	-0.34	Honduras		Panama	
Austria		Hungary	-0.34	Papua New Guinea	
Azerbaijan		Iceland		Paraguay	
Bangladesh		India	-0.06	Peru	
Belarus	-0.32	Indonesia	-0.36	Philippines	
Belgium	-0.31	Iran	-0.33	Poland	-0.35
Benin		Ireland		Portugal	-0.36
Bhutan		Israel		Romania	-0.31
Bolivia		Italy	-0.19	Russian Federation	
Botswana		Jamaica		Rwanda	
Brazil	-0.34	Japan		Saudi Arabia	
Bulgaria	-0.20	Jordan		Senegal	
Burkina Faso		Kazakhstan		Singapore	
Burundi		Kenya		Slovak Republic	-0.24
Cameroon		Korea, South	-0.30	Slovenia	-0.35
Canada	0.66	Kuwait		South Africa	-0.23
Central African Republic		Kyrgyz Republic		Spain	-0.26
Chile	-0.36	Latvia		Sri Lanka	
China		Lebanon		Sudan	
Colombia		Libya		Sweden	-0.23
Costa Rica		Lithuania	-0.10	Switzerland	-0.32
Croatia		Macedonia		Syria	
Cuba	-0.33	Madagascar		Tanzania	
Czech Republic	-0.28	Malawi		Thailand	-0.36
Denmark	-0.35	Malaysia	-0.33	Togo	
Dominican Republic		Mali		Trinidad and Tobago	
Ecuador		Mauritius		Tunisia	-0.33
Egypt	-0.33	Mexico	-0.33	Turkey	-0.36
El Salvador		Moldova		Uganda	
Estonia	-0.36	Mongolia		Ukraine	4.36
Ethiopia		Morocco		United Kingdom	3.98
Fiji		Mozambique		United States	1.67
Finland	-0.34	Nepal		Uruguay	
France	2.18	Netherlands	-0.32	Uzbekistan	-0.33
Gabon		New Zealand		Venezuela	
Germany	0.19	Nicaragua		Vietnam	

Reducing Stresses

Reducing Population Pressure

Variable Name: Total Fertility Rate

Variable Code: TFR Variable Number: 27

Units: Average Number of Births Per Woman

Reference Year: 2000

Source: Population Reference Bureau, *2000 World Population Data Sheet*, Washington, DC: PRB, 2000.

Logic: Fertility affects population growth and thus resource and consumption pressure. High levels of fertility are environmentally unsustainable.

Details:

Median: 2.74 Minimum: 1.11 Maximum: 7.5

Albania	2.16	Greece	1.29	Norway	1.81
Algeria	3.81	Guatemala	5.00	Pakistan	5.60
Argentina	2.62	Haiti	4.72	Panama	2.60
Armenia	1.30	Honduras	4.41	Papua New Guinea	4.84
Australia	1.70	Hungary	1.30	Paraguay	4.30
Austria	1.32	Iceland	2.05	Peru	3.40
Azerbaijan	1.87	India	3.34	Philippines	3.69
Bangladesh	3.27	Indonesia	2.78	Poland	1.39
Belarus	1.28	Iran	2.92	Portugal	1.46
Belgium	1.56	Ireland	1.93	Romania	1.32
Benin	6.32	Israel	2.92	Russian Federation	1.18
Bhutan	5.60	Italy	1.19	Rwanda	6.50
Bolivia	4.20	Jamaica	2.58	Saudi Arabia	6.37
Botswana	4.10	Japan	1.35	Senegal	5.70
Brazil	2.44	Jordan	4.40	Singapore	1.48
Bulgaria	1.11	Kazakhstan	1.70	Slovak Republic	1.38
Burkina Faso	6.80	Kenya	4.70	Slovenia	1.23
Burundi	6.48	Korea, South	1.48	South Africa	2.90
Cameroon	5.20	Kuwait	3.19	Spain	1.15
Canada	1.48	Kyrgyz Republic	2.83	Sri Lanka	2.06
Central African Republic	5.07	Latvia	1.16	Sudan	4.57
Chile	2.44	Lebanon	2.35	Sweden	1.49
China	1.80	Libya	4.10	Switzerland	1.46
Colombia	3.00	Lithuania	1.35	Syria	4.70
Costa Rica	3.20	Macedonia	1.93	Tanzania	5.63
Croatia	1.45	Madagascar	5.97	Thailand	1.90
Cuba	1.55	Malawi	5.90	Togo	6.12
Czech Republic	1.14	Malaysia	3.20	Trinidad and Tobago	1.68
Denmark	1.72	Mali	6.70	Tunisia	2.84
Dominican Republic	3.10	Mauritius	2.03	Turkey	2.46
Ecuador	3.30	Mexico	2.65	Uganda	6.86
Egypt	3.30	Moldova	1.51	Ukraine	1.28
El Salvador	3.58	Mongolia	2.69	United Kingdom	1.70
Estonia	1.21	Morocco	3.10	United States	2.07
Ethiopia	6.70	Mozambique	5.62	Uruguay	2.26
Fiji	3.30	Nepal	4.60	Uzbekistan	2.85
Finland	1.72	Netherlands	1.59	Venezuela	2.90
France	1.77	New Zealand	1.97	Vietnam	2.50
Gabon	5.40	Nicaragua	4.40	Zambia	6.08
Germany	1.32	Niger	7.50	Zimbabwe	4.00
Ghana	4.48	Nigeria	5.99		

Reducing Stresses

Reducing Population Pressure

Variable Name: Percentage Change in Projected Population Between 2000 and 2050

Variable Code: GR2050 **Variable Number:** 28

Units: Percent Change in Population

Reference Year: 2000

Source: Population Reference Bureau, *2000 World Population Data Sheet*, Washington, DC: PRB, 2000.

Logic: The projected change in population between 2000 and 2050 provides an indication of the trajectory of population change, which has an impact on a country's per capita natural resource availability and environmental conditions.

Details: A lower threshold of 0 was applied in calculating the ESI. All countries with growth rates of 0 or below received the same score.

Median: 47.17 **Minimum:** -34.96 **Maximum:** 260.7

Albania	51.71	Greece	-8.93	Norway	13.02
Algeria	83.44	Guatemala	154.03	Pakistan	89.20
Argentina	47.17	Haiti	84.52	Panama	49.21
Armenia	-0.50	Honduras	79.46	Papua New Guinea	97.83
Australia	29.72	Hungary	-19.80	Paraguay	128.25
Austria	-5.10	Iceland	19.22	Peru	76.51
Azerbaijan	48.69	India	62.45	Philippines	73.80
Bangladesh	64.53	Indonesia	46.96	Poland	-12.26
Belarus	-14.73	Iran	52.70	Portugal	-18.23
Belgium	-2.40	Ireland	19.34	Romania	-20.56
Benin	182.32	Israel	51.60	Russian Federation	-12.07
Bhutan	132.04	Italy	-27.46	Rwanda	23.20
Bolivia	87.24	Jamaica	47.18	Saudi Arabia	152.05
Botswana	-25.95	Japan	-20.79	Senegal	144.01
Brazil	43.57	Jordan	135.49	Singapore	159.21
Bulgaria	-34.96	Kazakhstan	-12.60	Slovak Republic	-12.89
Burkina Faso	187.15	Kenya	27.42	Slovenia	-16.57
Burundi	165.73	Korea, South	8.19	South Africa	-25.06
Cameroon	124.76	Kuwait	101.10	Spain	-22.04
Canada	30.81	Kyrgyz Republic	24.53	Sri Lanka	35.09
Central African Republic	81.30	Latvia	-27.69	Sudan	100.66
Chile	46.05	Lebanon	54.62	Sweden	3.86
China	8.26	Libya	109.31	Switzerland	3.00
Colombia	83.20	Lithuania	-15.77	Syria	113.89
Costa Rica	95.63	Macedonia	3.69	Tanzania	150.04
Croatia	-14.89	Madagascar	215.97	Thailand	15.83
Cuba	-4.89	Malawi	41.82	Togo	93.68
Czech Republic	-9.43	Malaysia	107.27	Trinidad and Tobago	19.15
Denmark	15.05	Mali	179.09	Tunisia	56.29
Dominican Republic	76.75	Mauritius	23.30	Turkey	54.13
Ecuador	67.56	Mexico	52.63	Uganda	260.70
Egypt	71.37	Moldova	-0.75	Ukraine	-22.54
El Salvador	117.01	Mongolia	65.21	United Kingdom	7.38
Estonia	-27.36	Morocco	60.25	United States	46.48
Ethiopia	193.05	Mozambique	20.07	Uruguay	27.71
Fiji	61.53	Nepal	106.10	Uzbekistan	36.64
Finland	-7.67	Netherlands	8.22	Venezuela	74.40
France	9.68	New Zealand	17.05	Vietnam	57.13
Gabon	118.76	Nicaragua	128.62	Zambia	111.74
Germany	-10.76	Niger	182.42	Zimbabwe	-18.21
Ghana	63.58	Nigeria	146.14		

Reducing Human Vulnerability**Basic Human Sustenance**

Variable Name: Daily Per Capita Calorie Supply as a Percentage of Total Requirements

Variable Code: CALOR **Variable Number:** 29

Units: Percent of Total Calorie Requirements

Reference Year: MRYA 1988-90

Source: World Resource Institute, World Development Indicators 1998-1999

Logic: This indicator represents a measure of the population vulnerability to malnutrition, famine or diseases, in addition to showing the incapacity of an economy to supply an adequate amount of food and to manage food resources.

Details: An upper threshold of 120 was applied in calculating the ESI. Countries with values higher than 120 were assigned a value of 120, based on considerations in the background paper: Bender, W. H., "An end use analysis of global food requirements", Food Policy, vol.19, n.4, August 1994.

Median: 112.5 **Minimum:** 73 **Maximum:** 157

Albania	107.00	Greece	151.00	Norway	120.00
Algeria	123.00	Guatemala	103.00	Pakistan	99.00
Argentina	131.00	Haiti	89.00	Panama	98.00
Armenia		Honduras	98.00	Papua New Guinea	114.00
Australia	124.00	Hungary	137.00	Paraguay	116.00
Austria	133.00	Iceland		Peru	87.00
Azerbaijan		India	101.00	Philippines	104.00
Bangladesh	88.00	Indonesia	121.00	Poland	131.00
Belarus		Iran	125.00	Portugal	136.00
Belgium	149.00	Ireland	157.00	Romania	116.00
Benin	104.00	Israel	125.00	Russian Federation	
Bhutan	128.00	Italy	139.00	Rwanda	82.00
Bolivia	84.00	Jamaica	114.00	Saudi Arabia	121.00
Botswana	97.00	Japan	125.00	Senegal	98.00
Brazil	114.00	Jordan	110.00	Singapore	136.00
Bulgaria	148.00	Kazakhstan		Slovak Republic	
Burkina Faso	94.00	Kenya	89.00	Slovenia	
Burundi	84.00	Korea, South	120.00	South Africa	128.00
Cameroon	95.00	Kuwait		Spain	141.00
Canada	122.00	Kyrgyz Republic		Sri Lanka	101.00
Central African Republic	82.00	Latvia		Sudan	87.00
Chile	102.00	Lebanon	127.00	Sweden	111.00
China	112.00	Libya	140.00	Switzerland	130.00
Colombia	106.00	Lithuania		Syria	126.00
Costa Rica	121.00	Macedonia		Tanzania	95.00
Croatia		Madagascar	95.00	Thailand	103.00
Cuba	135.00	Malawi	88.00	Togo	99.00
Czech Republic		Malaysia	120.00	Trinidad and Tobago	114.00
Denmark	135.00	Mali	96.00	Tunisia	131.00
Dominican Republic	102.00	Mauritius	128.00	Turkey	127.00
Ecuador	105.00	Mexico	131.00	Uganda	93.00
Egypt	132.00	Moldova		Ukraine	
El Salvador	102.00	Mongolia	97.00	United Kingdom	130.00
Estonia		Morocco	125.00	United States	138.00
Ethiopia	73.00	Mozambique	77.00	Uruguay	101.00
Fiji		Nepal	100.00	Uzbekistan	
Finland	113.00	Netherlands	114.00	Venezuela	99.00
France	143.00	New Zealand	131.00	Vietnam	
Gabon	104.00	Nicaragua	99.00	Zambia	87.00
Germany		Niger	95.00	Zimbabwe	94.00
Ghana	93.00	Nigeria	93.00		

Reducing Human Vulnerability

Basic Human Sustenance

Variable Name: Percentage of Population with Access to Improved Drinking Water Supply

Variable Code: WATSUP

Variable Number: 30

Units: Percent of Population

Reference Year: 2000

Source: World Health Organization and the United Nations Children's Fund, *Global Water Supply and Sanitation Assessment 2000*, New York: WHO and UNICEF, 2000.

Logic: The percentage of population with access to improved sources of drinking water supply is directly related to the capacity of a country to provide a healthy environment, reducing the risks associated with water-related diseases and exposure to pollutants.

Details:

Median: 83.5 **Minimum:** 24 **Maximum:** 100

Albania		Greece		Norway	100.00
Algeria	94.00	Guatemala	92.00	Pakistan	88.00
Argentina	79.00	Haiti	46.00	Panama	87.00
Armenia		Honduras	90.00	Papua New Guinea	42.00
Australia	100.00	Hungary	99.00	Paraguay	
Austria	100.00	Iceland		Peru	77.00
Azerbaijan		India	88.00	Philippines	87.00
Bangladesh	97.00	Indonesia	76.00	Poland	
Belarus	100.00	Iran	95.00	Portugal	
Belgium		Ireland		Romania	58.00
Benin	63.00	Israel		Russian Federation	99.00
Bhutan	62.00	Italy		Rwanda	41.00
Bolivia	79.00	Jamaica	71.00	Saudi Arabia	95.00
Botswana	95.00	Japan		Senegal	78.00
Brazil	87.00	Jordan	96.00	Singapore	100.00
Bulgaria	100.00	Kazakhstan	91.00	Slovak Republic	100.00
Burkina Faso	53.00	Kenya	49.00	Slovenia	100.00
Burundi	65.00	Korea, South	92.00	South Africa	86.00
Cameroon	62.00	Kuwait		Spain	
Canada	100.00	Kyrgyz Republic	77.00	Sri Lanka	83.00
Central African Republic	60.00	Latvia		Sudan	75.00
Chile	94.00	Lebanon	100.00	Sweden	100.00
China	75.00	Libya	72.00	Switzerland	100.00
Colombia	91.00	Lithuania		Syria	80.00
Costa Rica	98.00	Macedonia		Tanzania	54.00
Croatia		Madagascar	47.00	Thailand	80.00
Cuba	95.00	Malawi	57.00	Togo	54.00
Czech Republic		Malaysia		Trinidad and Tobago	86.00
Denmark	100.00	Mali	65.00	Tunisia	80.00
Dominican Republic	79.00	Mauritius	100.00	Turkey	83.00
Ecuador	71.00	Mexico	86.00	Uganda	50.00
Egypt	95.00	Moldova	100.00	Ukraine	
El Salvador	74.00	Mongolia	60.00	United Kingdom	100.00
Estonia		Morocco	82.00	United States	100.00
Ethiopia	24.00	Mozambique	60.00	Uruguay	98.00
Fiji	47.00	Nepal	81.00	Uzbekistan	85.00
Finland	100.00	Netherlands	100.00	Venezuela	84.00
France		New Zealand		Vietnam	56.00
Gabon	70.00	Nicaragua	79.00	Zambia	64.00
Germany		Niger	59.00	Zimbabwe	85.00
Ghana	64.00	Nigeria	57.00		

Reducing Human Vulnerability

Environmental Health

Variable Name: Child Death Rate from Respiratory Diseases

Variable Code: DISRES **Variable Number:** 31

Units: Deaths/100,000 population

Reference Year: MRYA 1990-1998

Source: World Health Organisation. *1997-1999 World Health Statistics Annual*, Geneva: WHO, 2000, available at <http://www.who.int/whosis/mort/download.htm>

Logic: Indicator of the degree to which children are impacted by poor air quality.

Details: The final number is based on an aggregation of deaths recorded for WHO codes B31, B320, and B321, by sex and by age. These were then combined with UN Population Division population data broken down by age group to produce rates. See the main report for more details on the methodology.

Median: 3.53 **Minimum:** 0.24 **Maximum:** 179.57

Albania	40.92	Greece	1.63	Norway	0.24
Algeria		Guatemala		Pakistan	
Argentina	10.34	Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia	1.37	Hungary	4.04	Paraguay	20.03
Austria	0.28	Iceland	3.07	Peru	
Azerbaijan		India		Philippines	46.49
Bangladesh		Indonesia		Poland	2.67
Belarus		Iran		Portugal	1.87
Belgium	0.94	Ireland	1.43	Romania	48.44
Benin		Israel	1.45	Russian Federation	
Bhutan		Italy	0.70	Rwanda	
Bolivia		Jamaica		Saudi Arabia	
Botswana		Japan	1.52	Senegal	
Brazil		Jordan		Singapore	3.14
Bulgaria	19.52	Kazakhstan	46.00	Slovak Republic	10.63
Burkina Faso		Kenya		Slovenia	1.39
Burundi		Korea, South	2.55	South Africa	19.57
Cameroon		Kuwait	3.53	Spain	0.64
Canada	0.62	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	
Chile	11.86	Lebanon		Sweden	1.03
China		Libya		Switzerland	
Colombia	12.73	Lithuania	3.11	Syria	
Costa Rica	6.35	Macedonia		Tanzania	
Croatia	2.77	Madagascar		Thailand	
Cuba	5.11	Malawi		Togo	
Czech Republic	2.35	Malaysia		Trinidad and Tobago	6.38
Denmark		Mali		Tunisia	
Dominican Republic		Mauritius	4.70	Turkey	
Ecuador	32.80	Mexico	27.97	Uganda	
Egypt	120.86	Moldova	33.59	Ukraine	
El Salvador	17.69	Mongolia	179.57	United Kingdom	1.78
Estonia	5.12	Morocco		United States	
Ethiopia		Mozambique		Uruguay	11.00
Fiji		Nepal		Uzbekistan	
Finland	0.41	Netherlands	0.88	Venezuela	19.07
France	0.78	New Zealand	1.75	Vietnam	
Gabon		Nicaragua	26.20	Zambia	
Germany	0.51	Niger		Zimbabwe	44.52
Ghana		Nigeria			

Reducing Human Vulnerability

Environmental Health

Variable Name: Death Rate from Intestinal Infectious Diseases

Variable Code: DISINT **Variable Number:** 32

Units: Deaths/100,000 population

Reference Year: MRYA 1990-1999

Source: World Health Organisation. *1997-1999 World Health Statistics Annual*, Geneva: WHO, 2000, available at <http://www.who.int/whosis/mort/download.htm>

Logic: Indicator of the degree to which the population is affected by poor sanitation and water quality, which are related to environmental conditions.

Details: The final number is based on an aggregation of deaths recorded for WHO code B01 for all age groups by sex. These were then combined with UN Population Division population data for the country in that particular year. The death rates were standardized to a common age structure. See the main report for more details on the methodology.

Median: 0.97 **Minimum:** 0.00 **Maximum:** 36.17

Albania	0.33	Greece	0.00	Norway	1.33
Algeria		Guatemala		Pakistan	
Argentina	1.95	Haiti		Panama	
Armenia	3.15	Honduras		Papua New Guinea	
Australia	0.62	Hungary	0.25	Paraguay	16.00
Austria	0.13	Iceland	1.11	Peru	
Azerbaijan	5.05	India		Philippines	13.78
Bangladesh		Indonesia		Poland	0.11
Belarus	0.43	Iran		Portugal	0.17
Belgium	0.84	Ireland	0.57	Romania	1.08
Benin		Israel	0.45	Russian Federation	0.90
Bhutan		Italy	0.12	Rwanda	
Bolivia		Jamaica		Saudi Arabia	
Botswana		Japan	0.88	Senegal	
Brazil		Jordan		Singapore	1.24
Bulgaria	0.56	Kazakhstan	3.24	Slovak Republic	0.24
Burkina Faso		Kenya		Slovenia	0.29
Burundi		Korea, South	2.62	South Africa	24.99
Cameroon		Kuwait	0.26	Spain	0.56
Canada	0.30	Kyrgyz Republic	8.28	Sri Lanka	
Central African Republic		Latvia	0.23	Sudan	
Chile	3.21	Lebanon		Sweden	0.39
China		Libya		Switzerland	
Colombia	6.42	Lithuania	0.34	Syria	
Costa Rica	9.28	Macedonia		Tanzania	
Croatia	0.38	Madagascar		Thailand	
Cuba	9.51	Malawi		Togo	
Czech Republic	0.43	Malaysia		Trinidad and Tobago	4.97
Denmark		Mali		Tunisia	
Dominican Republic		Mauritius	2.15	Turkey	
Ecuador	14.28	Mexico	18.48	Uganda	
Egypt	19.65	Moldova	1.04	Ukraine	0.54
El Salvador	36.17	Mongolia	2.06	United Kingdom	0.75
Estonia	0.31	Morocco		United States	
Ethiopia		Mozambique		Uruguay	4.30
Fiji		Nepal		Uzbekistan	9.58
Finland	0.97	Netherlands	0.28	Venezuela	20.16
France	0.97	New Zealand	0.51	Vietnam	
Gabon		Nicaragua	24.07	Zambia	
Germany	0.34	Niger		Zimbabwe	19.43
Ghana		Nigeria			

Reducing Human Vulnerability

Environmental Health

Variable Name: Under-5 Mortality Rate

Variable Code: U5MORT Variable Number: 33

Units: Deaths Per 1,000 Live Births

Reference Year: 1998

Source: The United Nations Children's Fund (UNICEF), *The State of the World's Children 2000*, New York: UNICEF, 2000.

Logic: Under-5 mortality rate is a measure of the vulnerability of the most vulnerable population group.

Details: Deaths between birth and age five, divided by 1,000 live births.

Median: 35 Minimum: 4 Maximum: 300

Albania	151.00	Greece	7.00	Norway	4.00
Algeria	255.00	Guatemala	52.00	Pakistan	136.00
Argentina	72.00	Haiti	130.00	Panama	20.00
Armenia	48.00	Honduras	44.00	Papua New Guinea	112.00
Australia	24.00	Hungary	11.00	Paraguay	33.00
Austria	43.00	Iceland	5.00	Peru	54.00
Azerbaijan	74.00	India	105.00	Philippines	44.00
Bangladesh	247.00	Indonesia	56.00	Poland	11.00
Belarus	47.00	Iran	33.00	Portugal	9.00
Belgium	35.00	Ireland	7.00	Romania	24.00
Benin	300.00	Israel	6.00	Russian Federation	25.00
Bhutan	300.00	Italy	6.00	Rwanda	170.00
Bolivia	255.00	Jamaica	11.00	Saudi Arabia	26.00
Botswana	48.00	Japan	4.00	Senegal	121.00
Brazil	42.00	Jordan	36.00	Singapore	5.00
Bulgaria	17.00	Kazakhstan	43.00	Slovak Republic	10.00
Burkina Faso	165.00	Kenya	117.00	Slovenia	5.00
Burundi	176.00	Korea, South	5.00	South Africa	83.00
Cameroon	153.00	Kuwait	13.00	Spain	6.00
Canada	6.00	Kyrgyz Republic	66.00	Sri Lanka	19.00
Central African Republic	173.00	Latvia	22.00	Sudan	115.00
Chile	12.00	Lebanon	35.00	Sweden	4.00
China	47.00	Libya	24.00	Switzerland	5.00
Colombia	30.00	Lithuania	23.00	Syria	32.00
Costa Rica	16.00	Macedonia	27.00	Tanzania	142.00
Croatia	9.00	Madagascar	157.00	Thailand	37.00
Cuba	8.00	Malawi	213.00	Togo	144.00
Czech Republic	6.00	Malaysia	10.00	Trinidad and Tobago	18.00
Denmark	5.00	Mali	237.00	Tunisia	32.00
Dominican Republic	51.00	Mauritius	23.00	Turkey	42.00
Ecuador	39.00	Mexico	34.00	Uganda	134.00
Egypt	69.00	Moldova	35.00	Ukraine	22.00
El Salvador	34.00	Mongolia	150.00	United Kingdom	6.00
Estonia	22.00	Morocco	70.00	United States	8.00
Ethiopia	173.00	Mozambique	206.00	Uruguay	19.00
Fiji	23.00	Nepal	100.00	Uzbekistan	58.00
Finland	5.00	Netherlands	5.00	Venezuela	25.00
France	5.00	New Zealand	6.00	Vietnam	42.00
Gabon	144.00	Nicaragua	48.00	Zambia	202.00
Germany	5.00	Niger	280.00	Zimbabwe	89.00
Ghana	105.00	Nigeria	187.00		

Social and Institutional Capacity

Science/Technology

Variable Name: Research & Development Scientists and Engineers per Million Population

Variable Code: RDPERS **Variable Number:** 34

Units: Scientists & Engineers/Million Population

Reference Year: MRYA 1980-1997

Source: United Nations Educational, Scientific and Cultural Organization (UNESCO), *Statistical Yearbook 1999*, Paris: UNESCO, 1999.

Logic: The greater the proportion of a country's population that is dedicated to research and development in a variety of scientific fields, the more capacity it has to respond effectively to environmental threats.

Details:

Median: 663.5 **Minimum:** 3 **Maximum:** 4909

Albania		Greece	773.00	Norway	3,664.00
Algeria		Guatemala	104.00	Pakistan	72.00
Argentina	660.00	Haiti		Panama	252.00
Armenia	1,485.00	Honduras		Papua New Guinea	
Australia	3,357.00	Hungary	1,099.00	Paraguay	
Austria	1,627.00	Iceland	4,131.00	Peru	233.00
Azerbaijan	2,791.00	India	149.00	Philippines	157.00
Bangladesh	52.00	Indonesia	182.00	Poland	1,358.00
Belarus	2,248.00	Iran	560.00	Portugal	1,182.00
Belgium	2,272.00	Ireland	2,319.00	Romania	1,387.00
Benin	176.00	Israel	4,828.00	Russian Federation	3,587.00
Bhutan		Italy	1,318.00	Rwanda	35.00
Bolivia	172.00	Jamaica	8.00	Saudi Arabia	
Botswana		Japan	4,909.00	Senegal	3.00
Brazil	168.00	Jordan	94.00	Singapore	2,318.00
Bulgaria	1,747.00	Kazakhstan		Slovak Republic	1,866.00
Burkina Faso	17.00	Kenya		Slovenia	2,251.00
Burundi	33.00	Korea, South	2,193.00	South Africa	1,031.00
Cameroon		Kuwait	230.00	Spain	1,305.00
Canada	2,719.00	Kyrgyz Republic	584.00	Sri Lanka	191.00
Central African Republic	56.00	Latvia	1,049.00	Sudan	
Chile	455.00	Lebanon		Sweden	3,826.00
China	454.00	Libya	362.00	Switzerland	3,006.00
Colombia	37.00	Lithuania	2,028.00	Syria	30.00
Costa Rica	532.00	Macedonia	1,335.00	Tanzania	
Croatia	1,916.00	Madagascar	12.00	Thailand	103.00
Cuba	1,612.00	Malawi		Togo	98.00
Czech Republic	1,222.00	Malaysia	93.00	Trinidad and Tobago	
Denmark	3,259.00	Mali		Tunisia	125.00
Dominican Republic		Mauritius	361.00	Turkey	291.00
Ecuador	146.00	Mexico	214.00	Uganda	21.00
Egypt	459.00	Moldova	330.00	Ukraine	2,171.00
El Salvador	20.00	Mongolia	910.00	United Kingdom	2,448.00
Estonia	2,017.00	Morocco		United States	3,676.00
Ethiopia		Mozambique		Uruguay	667.00
Fiji		Nepal		Uzbekistan	1,763.00
Finland	2,799.00	Netherlands	2,219.00	Venezuela	209.00
France	2,659.00	New Zealand	1,663.00	Vietnam	334.00
Gabon	234.00	Nicaragua	204.00	Zambia	
Germany	2,831.00	Niger		Zimbabwe	
Ghana		Nigeria	15.00		

Social and Institutional Capacity

Science/Technology

Variable Name: Expenditure for Research & Development as a Percentage of GNP

Variable Code: RDEXP **Variable Number:** 35

Units: Percent of Gross National Product

Reference Year: MRYA 1980-1997

Source: United Nations Educational, Scientific and Cultural Organization (UNESCO), *Statistical Yearbook 1999*, Paris: UNESCO, 1999.

Logic: The greater the proportion of a country's annual GNP that is dedicated to research and development in a variety of scientific fields, the more capacity it has to respond effectively to environmental threats.

Details:

Median: 0.64 **Minimum:** 0.01 **Maximum:** 3.76

Albania		Greece	0.47	Norway	1.58
Algeria		Guatemala	0.16	Pakistan	0.92
Argentina	0.38	Haiti		Panama	0.01
Armenia		Honduras		Papua New Guinea	
Australia	1.80	Hungary	0.68	Paraguay	
Austria	1.53	Iceland	1.55	Peru	0.25
Azerbaijan	0.21	India	0.73	Philippines	0.22
Bangladesh	0.03	Indonesia	0.07	Poland	0.77
Belarus	1.07	Iran	0.48	Portugal	0.62
Belgium	1.60	Ireland	1.61	Romania	0.72
Benin	0.70	Israel	2.35	Russian Federation	0.88
Bhutan		Italy	2.21	Rwanda	0.04
Bolivia	1.67	Jamaica	0.04	Saudi Arabia	
Botswana		Japan	2.80	Senegal	0.01
Brazil	0.81	Jordan	0.26	Singapore	1.13
Bulgaria	0.57	Kazakhstan	0.32	Slovak Republic	1.05
Burkina Faso	0.19	Kenya		Slovenia	1.46
Burundi	0.31	Korea, South	2.82	South Africa	0.70
Cameroon		Kuwait	0.16	Spain	0.90
Canada	1.66	Kyrgyz Republic	0.20	Sri Lanka	0.19
Central African Republic	0.25	Latvia	0.43	Sudan	
Chile	0.68	Lebanon		Sweden	3.76
China	0.66	Libya	0.22	Switzerland	2.60
Colombia	0.12	Lithuania	0.70	Syria	0.20
Costa Rica	0.21	Macedonia	0.31	Tanzania	
Croatia	1.03	Madagascar	0.18	Thailand	0.13
Cuba	0.84	Malawi		Togo	0.48
Czech Republic	1.20	Malaysia	0.24	Trinidad and Tobago	
Denmark	1.95	Mali		Tunisia	0.30
Dominican Republic		Mauritius	0.32	Turkey	0.45
Ecuador	0.02	Mexico	0.33	Uganda	0.57
Egypt	0.22	Moldova	0.90	Ukraine	
El Salvador	2.20	Mongolia		United Kingdom	1.95
Estonia	0.57	Morocco		United States	2.63
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	2.76	Netherlands	2.08	Venezuela	0.49
France	2.25	New Zealand	1.04	Vietnam	
Gabon	0.01	Nicaragua		Zambia	
Germany	2.41	Niger		Zimbabwe	
Ghana		Nigeria	0.09		

Social and Institutional Capacity

Science/Technology

Variable Name: Scientific and technical articles per million population

Variable Code: ARTPOP **Variable Number:** 36

Units: Articles/Million Population

Reference Year: 1995

Source: National Science Board, *Science and Engineering Indicators - 1998*. Arlington, VA: National Science Foundation (NSF), 1998.

Logic: The rate at which a country's scientific establishment publishes articles in the natural and earth sciences is correlated with its capacity to respond to environmental problems.

Details:

Median: 109.36 **Minimum:** 1.84 **Maximum:** 395.6

Albania		Greece	97.15	Norway	218.44
Algeria		Guatemala		Pakistan	
Argentina	26.92	Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia	281.29	Hungary	95.83	Paraguay	
Austria	150.49	Iceland	197.47	Peru	
Azerbaijan		India	6.27	Philippines	
Bangladesh		Indonesia		Poland	82.70
Belarus		Iran		Portugal	50.73
Belgium	183.98	Ireland	106.95	Romania	
Benin		Israel	395.60	Russian Federation	93.62
Bhutan		Italy	124.19	Rwanda	
Bolivia		Jamaica		Saudi Arabia	
Botswana		Japan	174.76	Senegal	
Brazil	10.24	Jordan		Singapore	178.88
Bulgaria	72.59	Kazakhstan		Slovak Republic	108.32
Burkina Faso		Kenya	2.87	Slovenia	124.12
Burundi		Korea, South	53.15	South Africa	26.95
Cameroon		Kuwait		Spain	131.80
Canada	314.58	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	
Chile	21.96	Lebanon		Sweden	318.18
China	4.29	Libya		Switzerland	390.88
Colombia		Lithuania		Syria	
Costa Rica		Macedonia		Tanzania	
Croatia	66.77	Madagascar		Thailand	
Cuba		Malawi		Togo	
Czech Republic	110.41	Malaysia		Trinidad and Tobago	
Denmark	271.01	Mali		Tunisia	
Dominican Republic		Mauritius		Turkey	11.82
Ecuador		Mexico	10.02	Uganda	
Egypt	14.32	Moldova		Ukraine	44.70
El Salvador		Mongolia		United Kingdom	250.36
Estonia		Morocco		United States	
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	242.96	Netherlands	254.10	Venezuela	
France	224.70	New Zealand	271.56	Vietnam	
Gabon		Nicaragua		Zambia	
Germany	212.94	Niger		Zimbabwe	
Ghana		Nigeria	1.84		

Social and Institutional Capacity

Capacity for Debate

Variable Name: IUCN Member Organizations per Million Population

Variable Code: IUCN **Variable Number:** 37

Units: Organizations/Million Population

Reference Year: 2000

Source: Membership List, IUCN-The World Conservation Union, 1 August 2000 (updated with new data on 10-Nov-00)

Logic: IUCN is the oldest international environmental membership organization, currently with over 900 members (governmental and NGO) worldwide, often including the most significant environmental NGOs in each country.

Details:

Median: 0.42 **Minimum:** 0.01 **Maximum:** 7.85

Albania		Greece	0.59	Norway	1.41
Algeria	0.12	Guatemala	1.26	Pakistan	0.18
Argentina	0.68	Haiti		Panama	3.34
Armenia		Honduras	1.02	Papua New Guinea	0.26
Australia	2.19	Hungary	0.39	Paraguay	0.95
Austria	0.78	Iceland	7.85	Peru	0.37
Azerbaijan		India	0.02	Philippines	0.05
Bangladesh	0.13	Indonesia	0.01	Poland	0.21
Belarus		Iran	0.02	Portugal	0.30
Belgium	0.70	Ireland	0.86	Romania	0.13
Benin		Israel	0.86	Russian Federation	0.05
Bhutan		Italy	0.33	Rwanda	
Bolivia	1.22	Jamaica	1.27	Saudi Arabia	0.19
Botswana	6.27	Japan	0.17	Senegal	0.55
Brazil	0.10	Jordan	2.38	Singapore	1.33
Bulgaria	0.23	Kazakhstan	0.24	Slovak Republic	0.57
Burkina Faso	0.33	Kenya	0.30	Slovenia	0.52
Burundi		Korea, South	0.14	South Africa	0.65
Cameroon	0.09	Kuwait	1.40	Spain	0.71
Canada	1.08	Kyrgyz Republic	0.23	Sri Lanka	0.70
Central African Republic		Latvia	0.37	Sudan	0.04
Chile	0.23	Lebanon	2.74	Sweden	0.82
China	0.01	Libya	0.23	Switzerland	1.17
Colombia	0.34	Lithuania	0.54	Syria	0.08
Costa Rica	2.62	Macedonia	0.52	Tanzania	0.12
Croatia	0.66	Madagascar	0.09	Thailand	0.05
Cuba		Malawi	0.32	Togo	0.28
Czech Republic	0.49	Malaysia	0.34	Trinidad and Tobago	
Denmark	1.36	Mali	0.68	Tunisia	0.61
Dominican Republic	0.42	Mauritius	1.89	Turkey	0.07
Ecuador	1.46	Mexico	0.11	Uganda	0.30
Egypt	0.05	Moldova	0.46	Ukraine	0.06
El Salvador	1.37	Mongolia	0.45	United Kingdom	0.76
Estonia	1.27	Morocco	0.25	United States	0.21
Ethiopia	0.02	Mozambique	0.21	Uruguay	1.61
Fiji	2.75	Nepal	0.48	Uzbekistan	0.05
Finland	1.00	Netherlands	1.34	Venezuela	0.36
France	0.56	New Zealand	2.08	Vietnam	0.04
Gabon		Nicaragua	0.52	Zambia	0.97
Germany	0.21	Niger	0.26	Zimbabwe	2.03
Ghana	0.20	Nigeria	0.03		

Social and Institutional Capacity**Capacity for Debate****Variable Name:** Civil and Political Liberties**Variable Code:** CIVLIB **Variable Number:** 38**Units:** Index Ranging from 1 (High Levels of Liberties) to 7 (Low Levels)**Reference Year:** 2000**Source:** Freedom House, *Freedom in the World 1999-2000*, New York: Freedom House, 2000, <http://www.freedomhouse.org/research/freeworld/2000/table5.htm>**Logic:** In countries that guarantee freedom of expression, rights to organize, rule of law, economic rights, and multi-party elections, there is more likely to be a vigorous public debate about values and issues relevant to environmental quality, and legal safeguards that encourage innovation.**Details:****Median:** 3 **Minimum:** 1 **Maximum:** 7

Albania	4.50	Greece	2.00	Norway	1.00
Algeria	5.50	Guatemala	3.50	Pakistan	6.00
Argentina	2.50	Haiti	5.00	Panama	1.50
Armenia	4.00	Honduras	3.00	Papua New Guinea	2.50
Australia	1.00	Hungary	1.50	Paraguay	3.50
Austria	1.00	Iceland	1.00	Peru	4.50
Azerbaijan	5.00	India	2.50	Philippines	2.50
Bangladesh	3.50	Indonesia	4.00	Poland	1.50
Belarus	6.00	Iran	6.00	Portugal	1.00
Belgium	1.50	Ireland	1.00	Romania	2.00
Benin	2.50	Israel	1.50	Russian Federation	4.50
Bhutan	6.50	Italy	1.50	Rwanda	6.50
Bolivia	2.00	Jamaica	2.00	Saudi Arabia	7.00
Botswana	2.00	Japan	1.50	Senegal	4.00
Brazil	3.50	Jordan	4.00	Singapore	5.00
Bulgaria	2.50	Kazakhstan	5.50	Slovak Republic	1.50
Burkina Faso	4.00	Kenya	5.50	Slovenia	1.50
Burundi	6.00	Korea, South	2.00	South Africa	1.50
Cameroon	6.50	Kuwait	4.50	Spain	1.50
Canada	1.00	Kyrgyz Republic	5.00	Sri Lanka	3.50
Central African Republic	3.50	Latvia	1.50	Sudan	7.00
Chile	2.00	Lebanon	5.50	Sweden	1.00
China	6.50	Libya	7.00	Switzerland	1.00
Colombia	4.00	Lithuania	1.50	Syria	7.00
Costa Rica	1.50	Macedonia	3.00	Tanzania	4.00
Croatia	4.00	Madagascar	3.00	Thailand	2.50
Cuba	7.00	Malawi	3.00	Togo	5.00
Czech Republic	1.50	Malaysia	5.00	Trinidad and Tobago	1.50
Denmark	1.00	Mali	3.00	Tunisia	5.50
Dominican Republic	2.50	Mauritius	1.50	Turkey	4.50
Ecuador	2.50	Mexico	3.50	Uganda	5.00
Egypt	5.50	Moldova	3.00	Ukraine	3.50
El Salvador	2.50	Mongolia	2.50	United Kingdom	1.50
Estonia	1.50	Morocco	4.50	United States	1.00
Ethiopia	5.00	Mozambique	3.50	Uruguay	1.50
Fiji	2.50	Nepal	3.50	Uzbekistan	6.50
Finland	1.00	Netherlands	1.00	Venezuela	4.00
France	1.50	New Zealand	1.00	Vietnam	7.00
Gabon	4.50	Nicaragua	3.00	Zambia	4.50
Germany	1.50	Niger	5.00	Zimbabwe	5.50
Ghana	3.00	Nigeria	3.50		

Social and Institutional Capacity**Regulation and Management**

Variable Name: Stringency and Consistency of Environmental Regulations

Variable Code: WEFSTR **Variable Number:** 39

Units: Survey Responses Ranging from 1 (Strongly Disagree) to 7 (Strongly Agree)

Reference Year: 2000

Source: Michael E. Porter et al, *The Global Competitiveness Report 2000*, Oxford: Oxford University Press, 2000.

Logic: Stronger regulations prompt more effective action, other things equal.

Details: Average of responses to the following survey questions: "Air pollution regulations are among the world's most stringent"; "Water pollution regulations are among the world's most stringent"; "Environmental regulations are enforced consistently and fairly"; and "Environmental regulations are typically enacted ahead of most other countries."

Median: 3.86 **Minimum:** 2.35 **Maximum:** 6.45

Albania		Greece	3.65	Norway	5.65
Algeria		Guatemala		Pakistan	
Argentina	2.90	Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia	5.53	Hungary	3.88	Paraguay	
Austria	6.30	Iceland	4.63	Peru	2.80
Azerbaijan		India	2.78	Philippines	2.55
Bangladesh		Indonesia	2.63	Poland	3.48
Belarus		Iran		Portugal	4.13
Belgium	5.20	Ireland	4.55	Romania	
Benin		Israel	4.13	Russian Federation	3.40
Bhutan		Italy	4.48	Rwanda	
Bolivia	2.40	Jamaica		Saudi Arabia	
Botswana		Japan	5.60	Senegal	
Brazil	3.83	Jordan	3.65	Singapore	5.85
Bulgaria	3.20	Kazakhstan		Slovak Republic	3.93
Burkina Faso		Kenya		Slovenia	
Burundi		Korea, South	4.15	South Africa	3.75
Cameroon		Kuwait		Spain	4.40
Canada	5.50	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	
Chile	3.85	Lebanon		Sweden	6.10
China	2.85	Libya		Switzerland	6.13
Colombia	3.23	Lithuania		Syria	
Costa Rica	3.90	Macedonia		Tanzania	
Croatia		Madagascar		Thailand	2.98
Cuba		Malawi		Togo	
Czech Republic	4.35	Malaysia	3.83	Trinidad and Tobago	
Denmark	6.38	Mali		Tunisia	
Dominican Republic		Mauritius	3.10	Turkey	3.63
Ecuador	3.00	Mexico	3.53	Uganda	
Egypt	3.35	Moldova		Ukraine	2.98
El Salvador	2.35	Mongolia		United Kingdom	5.40
Estonia		Morocco		United States	5.88
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	6.38	Netherlands	6.08	Venezuela	2.88
France	5.30	New Zealand	5.35	Vietnam	2.63
Gabon		Nicaragua		Zambia	
Germany	6.45	Niger		Zimbabwe	2.70
Ghana		Nigeria			

Social and Institutional Capacity**Regulation and Management**

Variable Name: Degree to which Environmental Regulations Promote Innovation

Variable Code: WEFINN **Variable Number:** 40

Units: Survey Responses Ranging from 1 (Strongly Disagree) to 7 (Strongly Agree)

Reference Year: 2000

Source: Michael E. Porter et al, *The Global Competitiveness Report 2000*, Oxford: Oxford University Press, 2000.

Logic: Where regulations and management strategies prompt effective innovation, better results follow.

Details: Average of responses to the following survey questions: “Environmental regulations are flexible and offer many points for achieving compliance”; and “Environmental regulations are transparent and stable”.

Median: 4.03 **Minimum:** 2.75 **Maximum:** 5.7

Albania		Greece	4.00	Norway	5.00
Algeria		Guatemala		Pakistan	
Argentina	3.60	Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia	4.80	Hungary	3.95	Paraguay	
Austria	4.75	Iceland	4.70	Peru	3.70
Azerbaijan		India	3.70	Philippines	3.65
Bangladesh		Indonesia	3.60	Poland	3.70
Belarus		Iran		Portugal	4.15
Belgium	4.45	Ireland	4.75	Romania	
Benin		Israel	4.15	Russian Federation	4.00
Bhutan		Italy	3.85	Rwanda	
Bolivia	3.35	Jamaica		Saudi Arabia	
Botswana		Japan	4.85	Senegal	
Brazil	3.95	Jordan	4.25	Singapore	5.55
Bulgaria	3.60	Kazakhstan		Slovak Republic	4.10
Burkina Faso		Kenya		Slovenia	
Burundi		Korea, South	4.00	South Africa	4.25
Cameroon		Kuwait		Spain	4.25
Canada	4.90	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	
Chile	3.60	Lebanon		Sweden	5.00
China	3.90	Libya		Switzerland	5.15
Colombia	3.80	Lithuania		Syria	
Costa Rica	3.90	Macedonia		Tanzania	
Croatia		Madagascar		Thailand	3.60
Cuba		Malawi		Togo	
Czech Republic	4.05	Malaysia	4.25	Trinidad and Tobago	
Denmark	5.10	Mali		Tunisia	
Dominican Republic		Mauritius	3.70	Turkey	4.15
Ecuador	2.75	Mexico	3.85	Uganda	
Egypt	4.00	Moldova		Ukraine	3.40
El Salvador	2.85	Mongolia		United Kingdom	4.90
Estonia		Morocco		United States	4.65
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	5.70	Netherlands	5.00	Venezuela	3.50
France	4.30	New Zealand	4.80	Vietnam	3.35
Gabon		Nicaragua		Zambia	
Germany	4.60	Niger		Zimbabwe	3.75
Ghana		Nigeria			

Social and Institutional Capacity

Regulation and Management

Variable Name: Percentage of Land Area Under Protected Status

Variable Code: PRAREA **Variable Number:** 41

Units: Percent Land Area

Reference Year: 1997

Source: World Resources Institute, *World Resources 2000-01*, Washington, DC: World Resources Institute, 2000.

Logic: The percentage of land area dedicated to protected areas represents a proxy for the investment by the country in biodiversity conservation.

Details:

Median: 6.47 **Minimum:** 0.00 **Maximum:** 43.08

Albania	2.76	Greece	2.24	Norway	6.76
Algeria	2.47	Guatemala	16.83	Pakistan	4.83
Argentina	1.70	Haiti	0.35	Panama	19.09
Armenia	7.59	Honduras	9.94	Papua New Guinea	0.02
Australia	6.99	Hungary	6.81	Paraguay	3.53
Austria	28.33	Iceland	9.70	Peru	2.70
Azerbaijan	5.49	India	4.80	Philippines	4.87
Bangladesh	0.75	Indonesia	9.66	Poland	9.56
Belarus	4.16	Iran	5.12	Portugal	6.50
Belgium	2.59	Ireland	0.86	Romania	4.66
Benin	7.03	Israel	14.92	Russian Federation	3.06
Bhutan	21.23	Italy	7.30	Rwanda	14.68
Bolivia	14.39	Jamaica	0.14	Saudi Arabia	2.31
Botswana	18.52	Japan	6.77	Senegal	11.32
Brazil	4.20	Jordan	3.35	Singapore	4.43
Bulgaria	4.44	Kazakhstan	2.75	Slovak Republic	21.76
Burkina Faso	10.44	Kenya	6.16	Slovenia	5.70
Burundi	5.61	Korea, South	6.91	South Africa	5.39
Cameroon	4.51	Kuwait	1.52	Spain	8.44
Canada	9.99	Kyrgyz Republic	3.59	Sri Lanka	13.28
Central African Republic	8.20	Latvia	12.48	Sudan	3.64
Chile	18.88	Lebanon	0.34	Sweden	9.01
China	6.44	Libya	0.10	Switzerland	18.03
Colombia	9.01	Lithuania	9.96	Syria	0.00
Costa Rica	13.75	Macedonia	7.08	Tanzania	15.64
Croatia	6.70	Madagascar	1.92	Thailand	13.09
Cuba	17.37	Malawi	11.25	Togo	7.87
Czech Republic	15.83	Malaysia	4.51	Trinidad and Tobago	3.04
Denmark	32.24	Mali	3.71	Tunisia	0.29
Dominican Republic	31.48	Mauritius	6.01	Turkey	1.39
Ecuador	43.08	Mexico	2.39	Uganda	9.57
Egypt	0.80	Moldova	1.18	Ukraine	1.55
El Salvador	0.25	Mongolia	10.30	United Kingdom	20.46
Estonia	12.00	Morocco	0.71	United States	13.39
Ethiopia	5.52	Mozambique	6.09	Uruguay	0.26
Fiji	1.03	Nepal	7.77	Uzbekistan	2.05
Finland	5.99	Netherlands	6.71	Venezuela	36.25
France	11.66	New Zealand	23.59	Vietnam	3.05
Gabon	2.81	Nicaragua	7.44	Zambia	8.56
Germany	26.95	Niger	7.65	Zimbabwe	7.93
Ghana	4.85	Nigeria	3.32		

Social and Institutional Capacity

Regulation and Management

Variable Name: Number of Sectoral EIA Guidelines

Variable Code: EIA **Variable Number:** 42

Units: Number of Guidelines

Reference Year: 1998

Source: IIED, WRI and IUCN. *A Directory of Impact Assessment Guidelines (Second Edition)*, London: International Institute for Environment and Development (IIED), 1998.

Logic: Environmental Impact Assessment represents an important tool for promoting sound environmental management.

Details:

Median: 0 **Minimum:** 0 **Maximum:** 13

Albania	0.00	Greece	1.00	Norway	0.00
Algeria	0.00	Guatemala	0.00	Pakistan	8.00
Argentina	6.00	Haiti	0.00	Panama	0.00
Armenia	0.00	Honduras	0.00	Papua New Guinea	0.00
Australia	1.00	Hungary	0.00	Paraguay	4.00
Austria	1.00	Iceland	0.00	Peru	6.00
Azerbaijan	0.00	India	9.00	Philippines	1.00
Bangladesh	3.00	Indonesia	5.00	Poland	0.00
Belarus	0.00	Iran	0.00	Portugal	7.00
Belgium	9.00	Ireland	2.00	Romania	0.00
Benin	0.00	Israel	0.00	Russian Federation	2.00
Bhutan	0.00	Italy	4.00	Rwanda	0.00
Bolivia	7.00	Jamaica	0.00	Saudi Arabia	0.00
Botswana	0.00	Japan	0.00	Senegal	0.00
Brazil	2.00	Jordan	0.00	Singapore	1.00
Bulgaria	0.00	Kazakhstan	0.00	Slovak Republic	8.00
Burkina Faso	0.00	Kenya	1.00	Slovenia	0.00
Burundi	0.00	Korea, South	0.00	South Africa	8.00
Cameroon	0.00	Kuwait	2.00	Spain	6.00
Canada	9.00	Kyrgyz Republic	0.00	Sri Lanka	2.00
Central African Republic	0.00	Latvia	0.00	Sudan	0.00
Chile	9.00	Lebanon	0.00	Sweden	3.00
China	1.00	Libya	0.00	Switzerland	6.00
Colombia	2.00	Lithuania	0.00	Syria	0.00
Costa Rica	8.00	Macedonia	0.00	Tanzania	1.00
Croatia	0.00	Madagascar	0.00	Thailand	7.00
Cuba	0.00	Malawi	2.00	Togo	0.00
Czech Republic	1.00	Malaysia	13.00	Trinidad and Tobago	0.00
Denmark	1.00	Mali	0.00	Tunisia	0.00
Dominican Republic	0.00	Mauritius	0.00	Turkey	0.00
Ecuador	1.00	Mexico	2.00	Uganda	0.00
Egypt	11.00	Moldova	0.00	Ukraine	0.00
El Salvador	0.00	Mongolia	0.00	United Kingdom	9.00
Estonia	0.00	Morocco	0.00	United States	9.00
Ethiopia	0.00	Mozambique	1.00	Uruguay	0.00
Fiji	0.00	Nepal	6.00	Uzbekistan	0.00
Finland	5.00	Netherlands	3.00	Venezuela	2.00
France	7.00	New Zealand	3.00	Vietnam	2.00
Gabon	0.00	Nicaragua	0.00	Zambia	0.00
Germany	3.00	Niger	1.00	Zimbabwe	9.00
Ghana	1.00	Nigeria	1.00		

Social and Institutional Capacity

Private Sector Responsiveness

Variable Name: ISO 14001 Certified Companies per Million Dollars GDP

Variable Code: ISO14 **Variable Number:** 43

Units: Number of ISO 14001 Certified Companies/Million US Dollars GDP

Reference Year: 2000

Source: ISO14001/EMAS registered companies, ISO World, International Standards Organisation, available at <http://www.ecology.or.jp/isoworld/english/analy14k.htm>, visited November 2000.

Logic: ISO 14001 specifies standards for corporate environmental management. The commitment to ISO 14001 certification serves as a proxy for the degree to which industries are instituting management practices that reduce waste and resource consumption.

Details:

Median: 0.05 **Minimum:** 0.03 **Maximum:** 30.8

Albania	0.00	Greece	0.00	Norway	0.00
Algeria	0.00	Guatemala	0.33	Pakistan	0.10
Argentina	2.58	Haiti	0.00	Panama	0.00
Armenia	0.00	Honduras	1.69	Papua New Guinea	0.00
Australia	13.45	Hungary	14.43	Paraguay	0.55
Austria	0.00	Iceland	0.00	Peru	1.08
Azerbaijan	0.00	India	1.56	Philippines	2.46
Bangladesh	0.00	Indonesia	1.59	Poland	1.89
Belarus	0.00	Iran	0.45	Portugal	0.00
Belgium	0.00	Ireland	0.00	Romania	0.08
Benin	0.00	Israel	4.47	Russian Federation	0.03
Bhutan	0.00	Italy	0.00	Rwanda	0.00
Bolivia	0.00	Jamaica	0.00	Saudi Arabia	0.31
Botswana	0.00	Japan	14.77	Senegal	0.00
Brazil	2.75	Jordan	5.17	Singapore	27.25
Bulgaria	0.00	Kazakhstan	0.00	Slovak Republic	7.06
Burkina Faso	0.00	Kenya	0.00	Slovenia	8.39
Burundi	0.00	Korea, South	8.01	South Africa	3.39
Cameroon	0.00	Kuwait	0.00	Spain	0.00
Canada	4.21	Kyrgyz Republic	0.00	Sri Lanka	0.39
Central African Republic	0.00	Latvia	0.65	Sudan	0.00
Chile	0.78	Lebanon	4.52	Sweden	0.00
China	0.94	Libya	0.00	Switzerland	30.80
Colombia	0.95	Lithuania	0.42	Syria	0.56
Costa Rica	8.22	Macedonia	0.00	Tanzania	0.00
Croatia	2.62	Madagascar	0.00	Thailand	9.40
Cuba	0.00	Malawi	0.00	Togo	0.00
Czech Republic	7.85	Malaysia	12.95	Trinidad and Tobago	1.10
Denmark	0.00	Mali	0.00	Tunisia	0.23
Dominican Republic	0.31	Mauritius	3.42	Turkey	1.80
Ecuador	0.32	Mexico	2.31	Uganda	0.00
Egypt	4.09	Moldova	0.00	Ukraine	0.06
El Salvador	0.00	Mongolia	0.00	United Kingdom	0.00
Estonia	3.31	Morocco	0.63	United States	1.22
Ethiopia	0.00	Mozambique	0.00	Uruguay	3.73
Fiji	3.25	Nepal	0.00	Uzbekistan	0.00
Finland	0.00	Netherlands	0.00	Venezuela	0.62
France	0.00	New Zealand	10.33	Vietnam	0.80
Gabon	0.00	Nicaragua	0.00	Zambia	3.84
Germany	0.00	Niger	0.00	Zimbabwe	1.14
Ghana	0.00	Nigeria	0.14		

Social and Institutional Capacity

Private Sector Responsiveness

Variable Name: Dow Jones Sustainability Group Index

Variable Code: DJSGI **Variable Number:** 44

Units: Percentage

Reference Year: 2000

Source: "Assessment of the Country Allocation of the Dow Jones Sustainability Group Index", SAM Sustainability Group, 2001.

Logic: The Dow Jones Sustainability Group Index tracks a group of companies that have been rated as the top 10% in terms of sustainability. Firms that are already in the Dow Jones Global Index are eligible to enter the Sustainability Group Index. Countries in which a higher percentage of eligible firms meet the requirements have a private sector that is contributing more vigorously to environmental sustainability.

Details: For each country, the number of companies in the Sustainability Index was divided by the number of companies in the Global Index.

Median: 10.73 **Minimum:** 0.00 **Maximum:** 46.34

Albania		Greece	10.34	Norway	
Algeria		Guatemala		Pakistan	
Argentina		Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia	25.00	Hungary		Paraguay	
Austria	33.33	Iceland		Peru	
Azerbaijan		India		Philippines	7.69
Bangladesh		Indonesia	0.00	Poland	
Belarus		Iran		Portugal	
Belgium	22.22	Ireland	11.11	Romania	
Benin		Israel		Russian Federation	
Bhutan		Italy	9.52	Rwanda	
Bolivia		Jamaica		Saudi Arabia	
Botswana		Japan	7.10	Senegal	
Brazil	11.76	Jordan		Singapore	6.98
Bulgaria		Kazakhstan		Slovak Republic	
Burkina Faso		Kenya		Slovenia	
Burundi		Korea, South	10.00	South Africa	2.86
Cameroon		Kuwait		Spain	17.39
Canada	17.20	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	
Chile	10.00	Lebanon		Sweden	40.74
China		Libya		Switzerland	42.31
Colombia		Lithuania		Syria	
Costa Rica		Macedonia		Tanzania	
Croatia		Madagascar		Thailand	20.00
Cuba		Malawi		Togo	
Czech Republic		Malaysia		Trinidad and Tobago	
Denmark	28.57	Mali		Tunisia	
Dominican Republic		Mauritius		Turkey	
Ecuador		Mexico	20.59	Uganda	
Egypt		Moldova		Ukraine	
El Salvador		Mongolia		United Kingdom	19.08
Estonia		Morocco		United States	7.56
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	33.33	Netherlands		Venezuela	
France	8.57	New Zealand	25.00	Vietnam	
Gabon		Nicaragua		Zambia	
Germany	46.34	Niger		Zimbabwe	
Ghana		Nigeria			

Social and Institutional Capacity

Private Sector Responsiveness

Variable Name: Average Innovest EcoValue '21 Rating of Firms

Variable Code: ECOVAL **Variable Number:** 45

Units: Scale ranging from -3 (low) to 3 (high)

Reference Year: 2001

Source: Innovest Strategic Value Advisors

Logic: The Innovest EcoValue '21 rating measures environmental performance at the firm level.

Details: Within each country, EcoValue levels were weighted by market capitalization share and then averaged to get a value for the individual country, based on the location of company headquarters.

Median: 0.83 **Minimum:** -3 **Maximum:** 2.34

Albania		Greece		Norway	2.00
Algeria		Guatemala		Pakistan	
Argentina		Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia	-3.00	Hungary		Paraguay	
Austria		Iceland		Peru	
Azerbaijan		India		Philippines	
Bangladesh		Indonesia		Poland	
Belarus		Iran		Portugal	
Belgium	-0.82	Ireland	2.00	Romania	
Benin		Israel		Russian Federation	
Bhutan		Italy	-2.01	Rwanda	
Bolivia		Jamaica		Saudi Arabia	
Botswana		Japan	1.69	Senegal	
Brazil		Jordan		Singapore	-2.97
Bulgaria		Kazakhstan		Slovak Republic	
Burkina Faso		Kenya		Slovenia	
Burundi		Korea, South		South Africa	
Cameroon		Kuwait		Spain	-0.96
Canada	1.36	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	
Chile		Lebanon		Sweden	2.34
China		Libya		Switzerland	1.40
Colombia		Lithuania		Syria	
Costa Rica		Macedonia		Tanzania	
Croatia		Madagascar		Thailand	
Cuba		Malawi		Togo	
Czech Republic		Malaysia	-3.00	Trinidad and Tobago	
Denmark	2.15	Mali		Tunisia	
Dominican Republic		Mauritius		Turkey	
Ecuador		Mexico	-3.00	Uganda	
Egypt		Moldova		Ukraine	
El Salvador		Mongolia		United Kingdom	1.07
Estonia		Morocco		United States	0.33
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	1.95	Netherlands	1.30	Venezuela	
France	-0.48	New Zealand		Vietnam	
Gabon		Nicaragua		Zambia	
Germany	0.59	Niger		Zimbabwe	
Ghana		Nigeria			

Social and Institutional Capacity

Private Sector Responsiveness

Variable Name: World Business Council on Sustainable Development Members (per million dollars GDP)

Variable Code: WBCSD **Variable Number:** 46

Units: Members per Million Dollars GDP

Reference Year: 2001

Source: World Business Council on Sustainable Development, "List of Members," <http://www.wbcds.org/memlist2.htm>, visited 6 January 2001.

Logic: The WBCSD is a prominent private-sector organization promoting the principles of sustainable development and encouraging high standards of environmental management within firms.

Details:

Median: 0.00 **Minimum:** 0.00 **Maximum:** 1148.45

Albania	0.00	Greece	0.00	Norway	0.00
Algeria	208.68	Guatemala	0.00	Pakistan	0.00
Argentina	0.00	Haiti	0.00	Panama	0.00
Armenia	0.00	Honduras	0.00	Papua New Guinea	0.00
Australia	133.62	Hungary	0.00	Paraguay	233.23
Austria	0.00	Iceland	0.00	Peru	0.00
Azerbaijan	0.00	India	0.00	Philippines	0.00
Bangladesh	0.00	Indonesia	0.00	Poland	0.00
Belarus	0.00	Iran	0.00	Portugal	204.06
Belgium	0.00	Ireland	0.00	Romania	0.00
Benin	0.00	Israel	0.00	Russian Federation	619.20
Bhutan	0.00	Italy	145.74	Rwanda	0.00
Bolivia	0.00	Jamaica	0.00	Saudi Arabia	0.00
Botswana	0.00	Japan	859.94	Senegal	0.00
Brazil	452.85	Jordan	0.00	Singapore	0.00
Bulgaria	0.00	Kazakhstan	0.00	Slovak Republic	0.00
Burkina Faso	0.00	Kenya	0.00	Slovenia	0.00
Burundi	0.00	Korea, South	222.59	South Africa	117.82
Cameroon	0.00	Kuwait	0.00	Spain	0.00
Canada	254.43	Kyrgyz Republic	0.00	Sri Lanka	0.00
Central African Republic	0.00	Latvia	0.00	Sudan	0.00
Chile	113.81	Lebanon	0.00	Sweden	0.00
China	322.03	Libya	0.00	Switzerland	470.36
Colombia	0.00	Lithuania	0.00	Syria	0.00
Costa Rica	167.04	Macedonia	0.00	Tanzania	0.00
Croatia	148.17	Madagascar	0.00	Thailand	183.30
Cuba	0.00	Malawi	0.00	Togo	0.00
Czech Republic	161.79	Malaysia	0.00	Trinidad and Tobago	0.00
Denmark	123.88	Mali	0.00	Tunisia	0.00
Dominican Republic	0.00	Mauritius	0.00	Turkey	0.00
Ecuador	0.00	Mexico	389.41	Uganda	0.00
Egypt	0.00	Moldova	0.00	Ukraine	0.00
El Salvador	0.00	Mongolia	0.00	United Kingdom	688.42
Estonia	0.00	Morocco	0.00	United States	1,148.45
Ethiopia	0.00	Mozambique	0.00	Uruguay	0.00
Fiji	0.00	Nepal	0.00	Uzbekistan	0.00
Finland	191.87	Netherlands	270.56	Venezuela	0.00
France	283.35	New Zealand	57.84	Vietnam	0.00
Gabon	0.00	Nicaragua	0.00	Zambia	0.00
Germany	360.86	Niger	0.00	Zimbabwe	0.00
Ghana	0.00	Nigeria	0.00		

Social and Institutional Capacity

Private Sector Responsiveness

Variable Name: Levels of Environmental Competitiveness

Variable Code: WEFCOM **Variable Number:** 47

Units: Survey Responses Ranging from 1 (Strongly Disagree) to 7 (Strongly Agree)

Reference Year: 2000

Source: Michael E. Porter et al, *The Global Competitiveness Report 2000*, Oxford: Oxford University Press, 2000.

Logic: In countries where compliance with environmental standards is seen as beneficial to the economic interests of firms, the prospects for environmental sustainability are enhanced.

Details: Response to the statement "Complying with environmental standards has a positive influence on long-term competitiveness by prompting companies to improve products and processes."

Median: 4.35 **Minimum:** 3.20 **Maximum:** 5.90

Albania		Greece	4.00	Norway	5.40
Algeria		Guatemala		Pakistan	
Argentina	4.10	Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia	5.30	Hungary	4.10	Paraguay	
Austria	5.40	Iceland	5.10	Peru	4.00
Azerbaijan		India	3.90	Philippines	3.70
Bangladesh		Indonesia	3.60	Poland	3.80
Belarus		Iran		Portugal	4.50
Belgium	5.20	Ireland	4.70	Romania	
Benin		Israel	4.40	Russian Federation	3.50
Bhutan		Italy	4.30	Rwanda	
Bolivia	3.50	Jamaica		Saudi Arabia	
Botswana		Japan	5.40	Senegal	
Brazil	4.60	Jordan	4.20	Singapore	5.90
Bulgaria	3.60	Kazakhstan		Slovak Republic	4.30
Burkina Faso		Kenya		Slovenia	
Burundi		Korea, South	4.60	South Africa	4.40
Cameroon		Kuwait		Spain	5.00
Canada	5.10	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	
Chile	4.20	Lebanon		Sweden	5.40
China	4.30	Libya		Switzerland	5.60
Colombia	3.90	Lithuania		Syria	
Costa Rica	4.50	Macedonia		Tanzania	
Croatia		Madagascar		Thailand	3.50
Cuba		Malawi		Togo	
Czech Republic	4.70	Malaysia	4.20	Trinidad and Tobago	
Denmark	5.70	Mali		Tunisia	
Dominican Republic		Mauritius	3.70	Turkey	4.20
Ecuador	4.20	Mexico	4.40	Uganda	
Egypt	4.30	Moldova		Ukraine	3.20
El Salvador	3.30	Mongolia		United Kingdom	5.00
Estonia		Morocco		United States	5.00
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	5.80	Netherlands	5.60	Venezuela	3.60
France	4.90	New Zealand	5.00	Vietnam	3.50
Gabon		Nicaragua		Zambia	
Germany	5.50	Niger		Zimbabwe	4.10
Ghana		Nigeria			

Social and Institutional Capacity

Environmental Information

Variable Name: Availability of Sustainable Development Information at the National Level

Variable Code: SDINFO **Variable Number:** 48

Units: Index Ranging from 1 (Low Levels of SD Information) to 4 (High Levels)

Reference Year: 1997

Source: United Nations Department of Economic and Social Affairs web site, <http://www.un.org/esa/agenda21/natinfo/agenda21/issue/inst.htm#info>, visited December 1999.

Logic: Agenda 21 represents a major effort to frame the sustainable development agenda, and therefore the quality of information related to Agenda 21 chapters has a direct bearing on decision-makers' abilities to pursue sustainability.

Details: In their reports to Rio+5 in 1997, countries rated themselves on the availability of information pertaining to chapters of Agenda 21 (from 1 for low levels of information, to 4 for high levels). We averaged the scores for seven key chapters, included Chapter 9 on protection of the atmosphere, Chapter 14 on sustainable agriculture and rural development, Chapter 15 on conservation of biological diversity, Chapter 18 on freshwater resources, Chapter 19 on toxic chemicals, Chapter 21 on solid wastes, and Chapter 40 on information for decision-making.

Median: 2.57 **Minimum:** 1.50 **Maximum:** 4.00

Albania	3.00
Algeria	2.29
Argentina	
Armenia	
Australia	
Austria	3.57
Azerbaijan	
Bangladesh	1.50
Belarus	
Belgium	
Benin	2.50
Bhutan	
Bolivia	2.00
Botswana	
Brazil	2.00
Bulgaria	
Burkina Faso	
Burundi	
Cameroon	
Canada	2.50
Central African Republic	
Chile	
China	
Colombia	2.00
Costa Rica	2.86
Croatia	
Cuba	2.83
Czech Republic	
Denmark	3.00
Dominican Republic	
Ecuador	2.57
Egypt	2.71
El Salvador	
Estonia	2.57
Ethiopia	
Fiji	2.17
Finland	3.14
France	2.83
Gabon	
Germany	3.14
Ghana	
Greece	2.29
Guatemala	
Haiti	1.57
Honduras	
Hungary	2.43
Iceland	3.00
India	
Indonesia	
Iran	
Ireland	3.43
Israel	3.29
Italy	
Jamaica	
Japan	2.86
Jordan	
Kazakhstan	
Kenya	
Korea, South	
Kuwait	
Kyrgyz Republic	
Latvia	
Lebanon	2.29
Libya	
Lithuania	3.00
Macedonia	2.71
Madagascar	
Malawi	2.00
Malaysia	2.43
Mali	
Mauritius	2.14
Mexico	2.14
Moldova	
Mongolia	2.57
Morocco	
Mozambique	
Nepal	3.43
Netherlands	3.57
New Zealand	1.86
Nicaragua	3.29
Niger	
Nigeria	
Norway	3.14
Pakistan	
Panama	2.00
Papua New Guinea	
Paraguay	1.71
Peru	
Philippines	1.83
Poland	2.17
Portugal	2.71
Romania	
Russian Federation	2.14
Rwanda	
Saudi Arabia	
Senegal	
Singapore	
Slovak Republic	3.50
Slovenia	2.86
South Africa	2.00
Spain	3.57
Sri Lanka	
Sudan	
Sweden	
Switzerland	3.00
Syria	2.00
Tanzania	
Thailand	2.71
Togo	
Trinidad and Tobago	
Tunisia	2.14
Turkey	2.29
Uganda	2.00
Ukraine	3.00
United Kingdom	
United States	4.00
Uruguay	
Uzbekistan	2.00
Venezuela	
Vietnam	3.29

Social and Institutional Capacity**Environmental Information****Variable Name:** Environmental Strategies and Action Plans**Variable Code:** PLANS **Variable Number:** 49**Units:** Number of Strategies and Action Plans**Reference Year:** 1992-1996**Source:** Sustainable Development Information Service, World Resources Institute, May 1996, <http://www.wri.org/wdces/>, site visited October 2000.**Logic:** Environmental Strategies, Action Plans and Assessments provide valuable information for sustainable development decision making.**Details:** Countries received one credit for each strategy, action plan or assessment produced from 1992-96 in the following categories: climate change, environmental synopsis, environmental profiles, environmental strategies, forestry, OECD, state of the environment, and other.**Median:** 2 **Minimum:** 0 **Maximum:** 7

Albania	2.00	Greece	0.00	Norway	6.00
Algeria	0.00	Guatemala	2.00	Pakistan	4.00
Argentina	3.00	Haiti	0.00	Panama	0.00
Armenia	0.00	Honduras	1.00	Papua New Guinea	1.00
Australia	3.00	Hungary	3.00	Paraguay	0.00
Austria	3.00	Iceland	2.00	Peru	2.00
Azerbaijan	1.00	India	5.00	Philippines	2.00
Bangladesh	1.00	Indonesia	7.00	Poland	4.00
Belarus	0.00	Iran	1.00	Portugal	3.00
Belgium	0.00	Ireland	2.00	Romania	0.00
Benin	3.00	Israel	2.00	Russian Federation	2.00
Bhutan	1.00	Italy	3.00	Rwanda	2.00
Bolivia	4.00	Jamaica	4.00	Saudi Arabia	0.00
Botswana	1.00	Japan	2.00	Senegal	2.00
Brazil	1.00	Jordan	0.00	Singapore	3.00
Bulgaria	0.00	Kazakhstan	1.00	Slovak Republic	2.00
Burkina Faso	2.00	Kenya	3.00	Slovenia	1.00
Burundi	2.00	Korea, South	0.00	South Africa	3.00
Cameroon	1.00	Kuwait	0.00	Spain	0.00
Canada	2.00	Kyrgyz Republic	0.00	Sri Lanka	5.00
Central African Republic	2.00	Latvia	3.00	Sudan	0.00
Chile	3.00	Lebanon	0.00	Sweden	1.00
China	6.00	Libya	0.00	Switzerland	2.00
Colombia	5.00	Lithuania	1.00	Syria	0.00
Costa Rica	0.00	Macedonia	1.00	Tanzania	5.00
Croatia	1.00	Madagascar	0.00	Thailand	2.00
Cuba	1.00	Malawi	2.00	Togo	2.00
Czech Republic	4.00	Malaysia	4.00	Trinidad and Tobago	1.00
Denmark	2.00	Mali	1.00	Tunisia	2.00
Dominican Republic	1.00	Mauritius	1.00	Turkey	1.00
Ecuador	5.00	Mexico	4.00	Uganda	5.00
Egypt	4.00	Moldova	4.00	Ukraine	2.00
El Salvador	3.00	Mongolia	3.00	United Kingdom	4.00
Estonia	3.00	Morocco	0.00	United States	4.00
Ethiopia	3.00	Mozambique	3.00	Uruguay	2.00
Fiji	4.00	Nepal	2.00	Uzbekistan	1.00
Finland	4.00	Netherlands	6.00	Venezuela	0.00
France	4.00	New Zealand	1.00	Vietnam	0.00
Gabon	2.00	Nicaragua	1.00	Zambia	2.00
Germany	2.00	Niger	3.00	Zimbabwe	3.00
Ghana	2.00	Nigeria	2.00		

Social and Institutional Capacity

Environmental Information

Variable Name: Number of ESI Variables Missing from a Subset of All Variables

Variable Code: ESIMIS **Variable Number:** 50

Units: Percentage

Reference Year: 2001

Source: 2001 Environmental Sustainability Index data set

Logic: The more ESI variables a country is missing, the poorer the availability of environmental information in general.

Details: We counted the number of missing variables from the set of variables for which it could reasonably be expected that any country could have coverage if it wanted to: GMS_EC, GMS_PH, GMS_SS, NO2, PRTBRD, PRTMAM, SO2, TSP, GMS_DO, BODWAT, CARSKM, COALKM, FOREST, FERTHA, GR2050, NOXKM, NUKE, PESTHA, PRESS, SO2KM, TFR, VOCKM, DISINT, DISRES, U5MORT, CALOR, WATSUP, CIVLIB, ENEFF, ARTPOP, EIA, GASPR, ISO14, IUCN, PLANS, PRAREA, RDEXP, RDPERS, RENEWP, SDINFO, CFC, CO2_EM, CO2HIS, SO2EXP, CITES, EIONUM, FOOT, FSC, GEF, MONFUN, VIENNA.

Median: 12 **Minimum:** 0 **Maximum:** 18

Albania	14.00	Greece	8.00	Norway	2.00
Algeria	14.00	Guatemala	12.00	Pakistan	9.00
Argentina	3.00	Haiti	18.00	Panama	12.00
Armenia	17.00	Honduras	14.00	Papua New Guinea	16.00
Australia	7.00	Hungary	0.00	Paraguay	14.00
Austria	6.00	Iceland	12.00	Peru	15.00
Azerbaijan	17.00	India	5.00	Philippines	5.00
Bangladesh	11.00	Indonesia	6.00	Poland	2.00
Belarus	12.00	Iran	9.00	Portugal	2.00
Belgium	8.00	Ireland	10.00	Romania	7.00
Benin	17.00	Israel	11.00	Russian Federation	4.00
Bhutan	17.00	Italy	8.00	Rwanda	18.00
Bolivia	15.00	Jamaica	14.00	Saudi Arabia	18.00
Botswana	15.00	Japan	3.00	Senegal	12.00
Brazil	4.00	Jordan	11.00	Singapore	12.00
Bulgaria	5.00	Kazakhstan	16.00	Slovak Republic	6.00
Burkina Faso	15.00	Kenya	14.00	Slovenia	8.00
Burundi	17.00	Korea, South	2.00	South Africa	6.00
Cameroon	15.00	Kuwait	17.00	Spain	7.00
Canada	1.00	Kyrgyz Republic	16.00	Sri Lanka	13.00
Central African Republic	17.00	Latvia	10.00	Sudan	13.00
Chile	5.00	Lebanon	17.00	Sweden	5.00
China	5.00	Libya	16.00	Switzerland	3.00
Colombia	6.00	Lithuania	5.00	Syria	14.00
Costa Rica	7.00	Macedonia	13.00	Tanzania	15.00
Croatia	11.00	Madagascar	14.00	Thailand	5.00
Cuba	8.00	Malawi	16.00	Togo	16.00
Czech Republic	8.00	Malaysia	4.00	Trinidad and Tobago	16.00
Denmark	7.00	Mali	13.00	Tunisia	12.00
Dominican Republic	17.00	Mauritius	14.00	Turkey	6.00
Ecuador	9.00	Mexico	4.00	Uganda	14.00
Egypt	8.00	Moldova	12.00	Ukraine	11.00
El Salvador	10.00	Mongolia	12.00	United Kingdom	2.00
Estonia	11.00	Morocco	12.00	United States	5.00
Ethiopia	16.00	Mozambique	16.00	Uruguay	12.00
Fiji	17.00	Nepal	14.00	Uzbekistan	16.00
Finland	1.00	Netherlands	1.00	Venezuela	8.00
France	4.00	New Zealand	4.00	Vietnam	16.00
Gabon	17.00	Nicaragua	12.00	Zambia	16.00
Germany	6.00	Niger	17.00	Zimbabwe	12.00
Ghana	12.00	Nigeria	14.00		

Social and Institutional Capacity

Eco-efficiency

Variable Name: Energy Efficiency (total energy consumption per unit GDP)

Variable Code: ENEFF **Variable Number:** 51

Units: Billion Btu/Million Dollars GDP

Reference Year: 1998

Source: US Energy Information Agency, <http://www.eia.doe.gov/emeu/international/contents.html>, site visited September 2000.

Logic: The more eco-efficient an economy is, the higher its resource productivity and the less energy it needs to produce goods and services.

Details:

Median: 15.37 **Minimum:** 2.76 **Maximum:** 101.19

Albania		Greece	12.95	Norway	12.17
Algeria	18.64	Guatemala	11.52	Pakistan	30.70
Argentina	12.22	Haiti	8.78	Panama	18.70
Armenia	19.26	Honduras	8.97	Papua New Guinea	10.57
Australia	11.46	Hungary	32.29	Paraguay	15.32
Austria	7.09	Iceland	14.49	Peru	10.81
Azerbaijan	101.19	India	28.13	Philippines	19.74
Bangladesh	13.15	Indonesia	22.96	Poland	45.05
Belarus	39.21	Iran	26.89	Portugal	11.77
Belgium	11.83	Ireland	6.85	Romania	58.39
Benin		Israel	9.96	Russian Federation	74.19
Bhutan	15.29	Italy	6.66	Rwanda	6.13
Bolivia	18.41	Jamaica	35.58	Saudi Arabia	35.11
Botswana	9.33	Japan	6.55	Senegal	7.87
Brazil	14.01	Jordan	34.52	Singapore	20.41
Bulgaria	60.71	Kazakhstan	76.93	Slovak Republic	63.95
Burkina Faso	2.76	Kenya	15.41	Slovenia	11.26
Burundi	6.93	Korea, South	17.91	South Africa	37.92
Cameroon	6.74	Kuwait	30.81	Spain	8.73
Canada	17.54	Kyrgyz Republic	66.03	Sri Lanka	13.70
Central African Republic		Latvia	25.01	Sudan	5.36
Chile	16.63	Lebanon	41.21	Sweden	9.14
China	39.10	Libya	23.64	Switzerland	5.19
Colombia	23.98	Lithuania	54.92	Syria	22.36
Costa Rica	16.13	Macedonia	67.74	Tanzania	8.53
Croatia		Madagascar	6.69	Thailand	19.29
Cuba	39.37	Malawi	9.36	Togo	8.51
Czech Republic	56.22	Malaysia	22.88	Trinidad and Tobago	76.60
Denmark	4.84	Mali	4.15	Tunisia	16.63
Dominican Republic	18.68	Mauritius	9.11	Turkey	13.85
Ecuador	27.57	Mexico	17.72	Uganda	3.40
Egypt	31.03	Moldova	47.38	Ukraine	96.53
El Salvador	13.75	Mongolia	44.24	United Kingdom	8.59
Estonia	16.09	Morocco	12.82	United States	13.41
Ethiopia	3.93	Mozambique	12.59	Uruguay	12.86
Fiji	13.10	Nepal	7.38	Uzbekistan	88.73
Finland	8.37	Netherlands	11.01	Venezuela	44.11
France	7.39	New Zealand	15.09	Vietnam	64.57
Gabon	11.04	Nicaragua	36.46	Zambia	28.31
Germany	7.28	Niger	6.40	Zimbabwe	22.34
Ghana	13.20	Nigeria	23.66		

Social and Institutional Capacity

Eco-efficiency

Variable Name: Renewable Energy Production as a Percentage of Total Energy Consumption

Variable Code: RENEWP **Variable Number:** 52

Units: Renewable Energy Production as a Percent of Total Energy Consumption

Reference Year: 1998

Source: US Energy Information Agency, <http://www.eia.doe.gov/emeu/international/contents.html>, site visited September 2000.

Logic: The higher the proportion of hydroelectric and renewable energy sources, the lower the reliance on more environmentally damaging sources such as fossil fuel energy.

Details: Hydroelectric, biomass, geothermal, solar and wind electric power production is calculated as a percentage of total energy consumption. Some countries exceed 100 percent because they are net exporters of renewable energy. A logarithmic transformation of this variable was used in calculating the ESI.

Albania	64.39	Greece	3.16	Norway	64.03
Algeria	0.04	Guatemala	19.36	Pakistan	12.88
Argentina	13.75	Haiti	15.12	Panama	24.26
Armenia	17.38	Honduras	26.53	Papua New Guinea	12.55
Australia	4.57	Hungary	0.15	Paraguay	533.89
Austria	29.81	Iceland	64.83	Peru	27.21
Azerbaijan	3.18	India	6.41	Philippines	18.90
Bangladesh	1.72	Indonesia	3.22	Poland	1.41
Belarus	0.02	Iran	1.68	Portugal	15.19
Belgium	0.55	Ireland	2.32	Romania	9.84
Benin	0.00	Israel	0.05	Russian Federation	6.02
Bhutan	265.37	Italy	6.80	Rwanda	13.16
Bolivia	12.34	Jamaica	3.20	Saudi Arabia	0.00
Botswana	0.00	Japan	5.72	Senegal	0.00
Brazil	38.38	Jordan	0.15	Singapore	0.00
Bulgaria	3.31	Kazakhstan	3.30	Slovak Republic	5.03
Burkina Faso	7.46	Kenya	28.99	Slovenia	11.66
Burundi	18.93	Korea, South	0.64	South Africa	0.37
Cameroon	38.32	Kuwait	0.00	Spain	7.62
Canada	29.29	Kyrgyz Republic	50.45	Sri Lanka	23.92
Central African Republic	17.66	Latvia	20.05	Sudan	14.92
Chile	17.42	Lebanon	4.13	Sweden	35.06
China	6.22	Libya	0.00	Switzerland	29.37
Colombia	25.71	Lithuania	2.08	Syria	12.59
Costa Rica	48.04	Macedonia	8.32	Tanzania	27.81
Croatia	14.51	Madagascar	23.33	Thailand	3.15
Cuba	3.95	Malawi	43.57	Togo	0.50
Czech Republic	1.49	Malaysia	1.80	Trinidad and Tobago	0.08
Denmark	4.81	Mali	19.46	Tunisia	0.14
Dominican Republic	12.20	Mauritius	2.91	Turkey	15.18
Ecuador	19.53	Mexico	6.18	Uganda	38.22
Egypt	6.89	Moldova	2.59	Ukraine	1.92
El Salvador	23.93	Mongolia	0.00	United Kingdom	1.20
Estonia	0.02	Morocco	5.52	United States	4.51
Ethiopia	35.10	Mozambique	34.23	Uruguay	63.55
Fiji	26.11	Nepal	31.67	Uzbekistan	3.64
Finland	19.11	Netherlands	1.11	Venezuela	20.74
France	6.50	New Zealand	37.24	Vietnam	25.36
Gabon	12.79	Nicaragua	27.29	Zambia	83.66
Germany	2.04	Niger	0.00	Zimbabwe	6.89
Ghana	55.36	Nigeria	6.11		

Social and Institutional Capacity

Reducing Public Choice Distortions

Variable Name: Price of Premium Gasoline

Variable Code: GASPR Variable Number: 53

Units: US Dollars/Liter

Reference Year: 1998 (last quarter)

Source: Gesellschaft fuer Technische Zusammenarbeit (GTZ), *Fuel Prices and Taxation*, Frankfurt: GTZ, May 1999.

Logic: Unsubsidized gasoline prices are an indicator that appropriate price signals are being sent and that environmental externalities have been internalized. Artificially low prices encourage wasteful consumption and thus air pollution and greenhouse gas emissions.

Details:

Median: 0.53 Minimum: 0.08 Maximum: 1.21

Albania	0.86	Greece	0.65	Norway	1.21
Algeria	0.31	Guatemala	0.41	Pakistan	0.46
Argentina	0.94	Haiti	0.59	Panama	0.41
Armenia	0.49	Honduras	0.50	Papua New Guinea	0.41
Australia	0.46	Hungary	0.72	Paraguay	0.47
Austria	1.04	Iceland	1.12	Peru	0.55
Azerbaijan	0.46	India	0.56	Philippines	0.34
Bangladesh	0.47	Indonesia	0.16	Poland	0.54
Belarus	0.34	Iran	0.08	Portugal	1.02
Belgium	1.12	Ireland	1.02	Romania	0.53
Benin	0.39	Israel	0.86	Russian Federation	0.28
Bhutan	0.59	Italy	1.19	Rwanda	0.72
Bolivia	0.53	Jamaica	0.37	Saudi Arabia	0.16
Botswana	0.31	Japan	1.02	Senegal	0.71
Brazil	0.80	Jordan	0.42	Singapore	0.72
Bulgaria	0.66	Kazakhstan	0.30	Slovak Republic	0.61
Burkina Faso	0.68	Kenya	0.70	Slovenia	0.66
Burundi	0.72	Korea, South	0.93	South Africa	0.43
Cameroon	0.64	Kuwait	0.17	Spain	0.84
Canada	0.41	Kyrgyz Republic	0.47	Sri Lanka	0.84
Central African Republic	0.81	Latvia	0.55	Sudan	0.33
Chile	0.49	Lebanon	0.35	Sweden	1.09
China	0.28	Libya	0.22	Switzerland	0.86
Colombia	0.24	Lithuania	0.51	Syria	0.45
Costa Rica	0.41	Macedonia	0.70	Tanzania	0.63
Croatia	0.67	Madagascar	0.47	Thailand	0.30
Cuba	0.50	Malawi	0.51	Togo	0.42
Czech Republic	0.72	Malaysia	0.28	Trinidad and Tobago	0.39
Denmark	1.05	Mali	0.77	Tunisia	0.60
Dominican Republic	0.40	Mauritius		Turkey	0.78
Ecuador	0.38	Mexico	0.36	Uganda	0.86
Egypt	0.29	Moldova	0.45	Ukraine	0.49
El Salvador	0.54	Mongolia	0.23	United Kingdom	1.11
Estonia	0.45	Morocco	0.79	United States	0.32
Ethiopia	0.36	Mozambique	0.55	Uruguay	0.90
Fiji	0.50	Nepal	0.59	Uzbekistan	0.11
Finland	1.17	Netherlands	1.14	Venezuela	0.14
France	1.11	New Zealand	0.64	Vietnam	0.35
Gabon	0.63	Nicaragua	0.47	Zambia	0.53
Germany	0.96	Niger	0.76	Zimbabwe	0.26
Ghana	0.32	Nigeria	0.13		

Social and Institutional Capacity

Reducing Public Choice Distortions

Variable Name: Subsidies for Energy or Materials Usage

Variable Code: WEFSUB

Variable Number: 54

Units: Survey Responses Ranging from 1 (Strongly Disagree) to 7 (Strongly Agree)

Reference Year: 2000

Source: Michael E. Porter et al, *The Global Competitiveness Report 2000*, Oxford: Oxford University Press, 2000.

Logic: Subsidies encourage wasteful consumption of energy and materials.

Details: Response to the statement "No government subsidies for energy or materials usage are present."

Median: 4.45

Minimum: 2.60

Maximum: 6.20

Albania		Greece	4.20	Norway	4.50
Algeria		Guatemala		Pakistan	
Argentina	5.10	Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia	5.20	Hungary	4.40	Paraguay	
Austria	5.10	Iceland	5.10	Peru	5.50
Azerbaijan		India	3.00	Philippines	4.20
Bangladesh		Indonesia	2.90	Poland	3.70
Belarus		Iran		Portugal	4.40
Belgium	4.90	Ireland	5.20	Romania	
Benin		Israel	5.10	Russian Federation	4.20
Bhutan		Italy	4.40	Rwanda	
Bolivia	5.40	Jamaica		Saudi Arabia	
Botswana		Japan	4.60	Senegal	
Brazil	4.60	Jordan	4.40	Singapore	5.30
Bulgaria	3.50	Kazakhstan		Slovak Republic	3.50
Burkina Faso		Kenya		Slovenia	
Burundi		Korea, South	4.10	South Africa	4.60
Cameroon		Kuwait		Spain	4.40
Canada	4.80	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	
Chile	5.10	Lebanon		Sweden	4.70
China	4.00	Libya		Switzerland	5.10
Colombia	4.40	Lithuania		Syria	
Costa Rica	4.20	Macedonia		Tanzania	
Croatia		Madagascar		Thailand	3.80
Cuba		Malawi		Togo	
Czech Republic	4.40	Malaysia	4.40	Trinidad and Tobago	
Denmark	5.10	Mali		Tunisia	
Dominican Republic		Mauritius	4.50	Turkey	4.60
Ecuador	2.60	Mexico	4.10	Uganda	
Egypt	4.00	Moldova		Ukraine	3.50
El Salvador	3.90	Mongolia		United Kingdom	5.20
Estonia		Morocco		United States	4.60
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	6.20	Netherlands	5.30	Venezuela	3.60
France	5.00	New Zealand	6.10	Vietnam	3.70
Gabon		Nicaragua		Zambia	
Germany	4.60	Niger		Zimbabwe	3.60
Ghana		Nigeria			

Social and Institutional Capacity

Reducing Public Choice Distortions

Variable Name: Reducing Corruption

Variable Code: GRAFT **Variable Number:** 55

Units: Standardized Scale in which high values represent low levels of corruption.

Reference Year: 2000

Source: Dataset from “Aggregating Governance Indicators” and “Governance Matters”, Kaufmann D., Kraay A. and Zoido-Lobaton P., May 2000, World Bank.

Logic: Corruption contributes to lax enforcement of environmental regulations and an ability on the part of producers and consumers to evade responsibility for the environmental harms they cause.

Details:

Median: -0.28 **Minimum:** -1.57 **Maximum:** 2.13

Albania	-0.99	Greece	0.82	Norway	1.69
Algeria	-0.88	Guatemala	-0.82	Pakistan	-0.77
Argentina	-0.27	Haiti	-0.53	Panama	-0.46
Armenia	-0.80	Honduras	-0.94	Papua New Guinea	-0.85
Australia	1.60	Hungary	0.61	Paraguay	-0.96
Austria	1.46	Iceland	1.83	Peru	-0.20
Azerbaijan	-1.00	India	-0.31	Philippines	-0.23
Bangladesh	-0.29	Indonesia	-0.80	Poland	0.49
Belarus	-0.65	Iran	-0.85	Portugal	1.22
Belgium	0.67	Ireland	1.57	Romania	-0.46
Benin	-0.78	Israel	1.28	Russian Federation	-0.62
Bhutan		Italy	0.80	Rwanda	
Bolivia	-0.44	Jamaica	-0.12	Saudi Arabia	-0.58
Botswana	0.54	Japan	0.72	Senegal	-0.24
Brazil	0.06	Jordan	0.14	Singapore	1.95
Bulgaria	-0.56	Kazakhstan	-0.87	Slovak Republic	0.03
Burkina Faso	-0.37	Kenya	-0.65	Slovenia	1.02
Burundi		Korea, South	0.16	South Africa	0.30
Cameroon	-1.10	Kuwait	0.62	Spain	1.21
Canada	2.06	Kyrgyz Republic	-0.76	Sri Lanka	-0.12
Central African Republic		Latvia	-0.26	Sudan	-1.02
Chile	1.03	Lebanon	-0.40	Sweden	2.09
China	-0.29	Libya	-0.88	Switzerland	2.07
Colombia	-0.49	Lithuania	0.03	Syria	-0.79
Costa Rica	0.58	Macedonia	-0.52	Tanzania	-0.92
Croatia	-0.46	Madagascar	-0.47	Thailand	-0.16
Cuba	0.27	Malawi	-0.19	Togo	-0.24
Czech Republic	0.38	Malaysia	0.63	Trinidad and Tobago	0.51
Denmark	2.13	Mali	-0.48	Tunisia	0.02
Dominican Republic	-0.77	Mauritius	0.34	Turkey	-0.35
Ecuador	-0.82	Mexico	-0.28	Uganda	-0.47
Egypt	-0.27	Moldova	-0.39	Ukraine	-0.89
El Salvador	-0.35	Mongolia	-0.15	United Kingdom	1.71
Estonia	0.59	Morocco	0.13	United States	1.41
Ethiopia	-0.44	Mozambique	-0.53	Uruguay	0.43
Fiji	0.81	Nepal		Uzbekistan	-0.96
Finland	2.08	Netherlands	2.03	Venezuela	-0.72
France	1.28	New Zealand	2.07	Vietnam	-0.33
Gabon	-1.02	Nicaragua	-0.84	Zambia	-0.61
Germany	1.62	Niger	-1.57	Zimbabwe	-0.32
Ghana	-0.30	Nigeria	-0.95		

Global Stewardship

International Commitment

Variable Name: Number of Memberships in Environmental Intergovernmental Organizations

Variable Code: EIONUM **Variable Number:** 56

Units: Number of Memberships

Reference Year: 1998

Source: Organizational Memberships from Yearbook of International Organizations. Digital data set provided by Center for International Development and Conflict Management, University of Maryland.

Logic: Countries contribute to global environmental governance by participating in intergovernmental environmental organizations.

Details: 100 intergovernmental organizations were coded as “environmental” by CIESIN. (List available upon request)

Median: 12 **Minimum:** 2 **Maximum:** 35

Albania	6.00	Greece	23.00	Norway	26.00
Algeria	14.00	Guatemala	13.00	Pakistan	14.00
Argentina	15.00	Haiti	8.00	Panama	14.00
Armenia	4.00	Honduras	9.00	Papua New Guinea	11.00
Australia	19.00	Hungary	15.00	Paraguay	9.00
Austria	20.00	Iceland		Peru	15.00
Azerbaijan	5.00	India	23.00	Philippines	14.00
Bangladesh	7.00	Indonesia	15.00	Poland	16.00
Belarus	5.00	Iran	11.00	Portugal	21.00
Belgium	26.00	Ireland	19.00	Romania	13.00
Benin	10.00	Israel	12.00	Russian Federation	22.00
Bhutan	2.00	Italy	26.00	Rwanda	5.00
Bolivia	15.00	Jamaica	10.00	Saudi Arabia	8.00
Botswana	6.00	Japan	24.00	Senegal	14.00
Brazil	20.00	Jordan	11.00	Singapore	8.00
Bulgaria	11.00	Kazakhstan	5.00	Slovak Republic	12.00
Burkina Faso	9.00	Kenya	17.00	Slovenia	11.00
Burundi	5.00	Korea, South	16.00	South Africa	13.00
Cameroon	18.00	Kuwait	10.00	Spain	27.00
Canada	18.00	Kyrgyz Republic	3.00	Sri Lanka	14.00
Central African Republic	7.00	Latvia	8.00	Sudan	15.00
Chile	10.00	Lebanon	10.00	Sweden	27.00
China	12.00	Libya	10.00	Switzerland	24.00
Colombia	16.00	Lithuania	8.00	Syria	15.00
Costa Rica	12.00	Macedonia	6.00	Tanzania	16.00
Croatia	9.00	Madagascar	9.00	Thailand	16.00
Cuba	13.00	Malawi	12.00	Togo	13.00
Czech Republic	12.00	Malaysia	16.00	Trinidad and Tobago	12.00
Denmark	26.00	Mali	12.00	Tunisia	16.00
Dominican Republic	10.00	Mauritius	10.00	Turkey	14.00
Ecuador	17.00	Mexico	15.00	Uganda	13.00
Egypt	21.00	Moldova	5.00	Ukraine	8.00
El Salvador	10.00	Mongolia	5.00	United Kingdom	28.00
Estonia	8.00	Morocco	18.00	United States	23.00
Ethiopia	9.00	Mozambique	6.00	Uruguay	11.00
Fiji	8.00	Nepal	6.00	Uzbekistan	5.00
Finland	25.00	Netherlands	30.00	Venezuela	16.00
France	35.00	New Zealand	12.00	Vietnam	8.00
Gabon	13.00	Nicaragua	12.00	Zambia	10.00
Germany	34.00	Niger	10.00	Zimbabwe	11.00
Ghana	13.00	Nigeria	17.00		

Global Stewardship

International Commitment

Variable Name: Percentage of CITES Reporting Requirements Met

Variable Code: CITES **Variable Number:** 57

Units: Percent of Requirements Met

Reference Year: 2000

Source: Convention on International Trade in Endangered Species of Wild Fauna and Flora, Report on National Reports Required Under Article VIII, Paragraph 7(a), of the Convention, Eleventh Meeting of the Conference of the Parties, Gigiri, Kenya, April 2000, available at <http://www.unep-wcmc.org/CITES/eng/cop/11/docs/19.pdf>, site visited November 2000.

Logic: Preparing and submitting national reports is a fundamental responsibility under CITES. The degree to which a country fulfills this responsibility is an indication of how seriously it takes its commitment to protection of endangered species.

Details:

Median: 75 **Minimum:** 0 **Maximum:** 100

Albania	0.00	Greece	100.00	Norway	87.00
Algeria	60.00	Guatemala	89.50	Pakistan	78.30
Argentina	88.90	Haiti	0.00	Panama	81.00
Armenia	0.00	Honduras	21.40	Papua New Guinea	73.90
Australia	100.00	Hungary	85.70	Paraguay	68.20
Austria	100.00	Iceland	0.00	Peru	75.00
Azerbaijan	0.00	India	100.00	Philippines	83.30
Bangladesh	70.60	Indonesia	95.00	Poland	88.90
Belarus	50.00	Iran	69.60	Portugal	72.20
Belgium	100.00	Ireland	0.00	Romania	40.00
Benin	26.70	Israel	52.60	Russian Federation	78.30
Bhutan	0.00	Italy	100.00	Rwanda	16.70
Bolivia	60.00	Jamaica	50.00	Saudi Arabia	0.00
Botswana	90.50	Japan	89.50	Senegal	81.80
Brazil	54.20	Jordan	35.00	Singapore	100.00
Bulgaria	62.50	Kazakhstan	0.00	Slovak Republic	100.00
Burkina Faso	55.60	Kenya	65.00	Slovenia	0.00
Burundi	27.30	Korea, South	100.00	South Africa	95.80
Cameroon	72.20	Kuwait	0.00	Spain	100.00
Canada	95.80	Kyrgyz Republic	0.00	Sri Lanka	70.00
Central African Republic	47.40	Latvia	100.00	Sudan	56.30
Chile	75.00	Lebanon	0.00	Sweden	100.00
China	100.00	Libya	0.00	Switzerland	100.00
Colombia	83.30	Lithuania	0.00	Syria	0.00
Costa Rica	83.30	Macedonia	0.00	Tanzania	84.20
Croatia	0.00	Madagascar	87.50	Thailand	68.80
Cuba	88.90	Malawi	77.80	Togo	75.00
Czech Republic	100.00	Malaysia	85.70	Trinidad and Tobago	66.70
Denmark	95.50	Mali	100.00	Tunisia	100.00
Dominican Republic	100.00	Mauritius	87.50	Turkey	66.70
Ecuador	70.80	Mexico	87.50	Uganda	50.00
Egypt	19.00	Moldova	0.00	Ukraine	0.00
El Salvador	33.30	Mongolia	100.00	United Kingdom	100.00
Estonia	85.70	Morocco	60.90	United States	87.50
Ethiopia	90.00	Mozambique	77.80	Uruguay	62.50
Fiji	0.00	Nepal	75.00	Uzbekistan	50.00
Finland	82.60	Netherlands	100.00	Venezuela	76.20
France	100.00	New Zealand	100.00	Vietnam	40.00
Gabon	70.00	Nicaragua	90.90	Zambia	72.20
Germany	100.00	Niger	50.00	Zimbabwe	88.90
Ghana	87.00	Nigeria	45.80		

Global Stewardship

International Commitment

Variable Name: Levels of Participation in the Vienna Convention/ Montreal Protocol

Variable Code: VIENNA **Variable Number:** 58

Units: Index Ranging from 0 (no participation) to 3 (high levels of participation)

Reference Year: 2000

Source: United Nations Environment Program, The Ozone Secretariat, <http://www.unep.org/ozone/ratif.htm>, site visited November 2000.

Logic: The number of protocols and amendments that a country has acceded to or ratified under the Vienna Convention is an indication of its commitment to fight ozone depletion.

Details: The index assigned values as follows. Countries received a score of zero if they were not signatory to the Vienna Convention. They received a score of 1 if they had ratified the Montreal Protocol only. They received a score of 2 if they ratified the above plus the London Amendment. They received a score of 2.5 if they ratified the above plus the Copenhagen Amendment. They received a score of 3 if they ratified the above plus the Montreal Amendment.

Median: 2.50 **Minimum:** 0 **Maximum:** 3

Albania	1.00	Greece	2.50	Norway	3.00
Algeria	2.50	Guatemala	1.00	Pakistan	2.50
Argentina	2.50	Haiti	2.00	Panama	3.00
Armenia	1.00	Honduras	1.00	Papua New Guinea	2.00
Australia	3.00	Hungary	3.00	Paraguay	2.00
Austria	3.00	Iceland	3.00	Peru	2.50
Azerbaijan	3.00	India	2.00	Philippines	2.00
Bangladesh	2.00	Indonesia	2.50	Poland	3.00
Belarus	2.00	Iran	2.50	Portugal	2.50
Belgium	2.50	Ireland	2.50	Romania	2.00
Benin	2.50	Israel	2.50	Russian Federation	2.00
Bhutan	0.00	Italy	2.50	Rwanda	0.00
Bolivia	3.00	Jamaica	2.50	Saudi Arabia	2.50
Botswana	2.50	Japan	2.50	Senegal	3.00
Brazil	2.50	Jordan	3.00	Singapore	3.00
Bulgaria	3.00	Kazakhstan	1.00	Slovak Republic	3.00
Burkina Faso	2.50	Kenya	2.50	Slovenia	3.00
Burundi	1.00	Korea, South	3.00	South Africa	2.00
Cameroon	2.50	Kuwait	2.50	Spain	3.00
Canada	3.00	Kyrgyz Republic	1.00	Sri Lanka	3.00
Central African Republic	1.00	Latvia	2.50	Sudan	1.00
Chile	3.00	Lebanon	3.00	Sweden	3.00
China	2.00	Libya	1.00	Switzerland	2.50
Colombia	2.50	Lithuania	2.50	Syria	3.00
Costa Rica	2.50	Macedonia	3.00	Tanzania	2.00
Croatia	3.00	Madagascar	1.00	Thailand	2.50
Cuba	2.50	Malawi	2.50	Togo	2.50
Czech Republic	3.00	Malaysia	2.50	Trinidad and Tobago	3.00
Denmark	2.50	Mali	2.00	Tunisia	3.00
Dominican Republic	1.00	Mauritius	2.50	Turkey	2.50
Ecuador	2.50	Mexico	2.50	Uganda	3.00
Egypt	3.00	Moldova	1.00	Ukraine	2.00
El Salvador	1.00	Mongolia	2.50	United Kingdom	2.50
Estonia	2.50	Morocco	2.50	United States	2.50
Ethiopia	1.00	Mozambique	2.50	Uruguay	3.00
Fiji	2.50	Nepal	2.00	Uzbekistan	2.50
Finland	2.50	Netherlands	3.00	Venezuela	2.50
France	2.50	New Zealand	3.00	Vietnam	2.50
Gabon	1.00	Nicaragua	2.50	Zambia	2.00
Germany	3.00	Niger	3.00	Zimbabwe	2.50
Ghana	2.00	Nigeria	1.00		

Global Stewardship

International Commitment

Variable Name: Compliance with Environmental Agreements

Variable Code: WEFAGR **Variable Number:** 59

Units: Survey Responses Ranging from 1 (Strongly Disagree) to 7 (Strongly Agree)

Reference Year: 2000

Source: Michael E. Porter et al, *The Global Competitiveness Report 2000*, Oxford: Oxford University Press, 2000.

Logic: Where compliance is a high priority, other things equal, global obligations are more effectively honored.

Details: Response to the statement: "Compliance with international environmental agreements is a high priority."

Median: 4.40 **Minimum:** 3 **Maximum:** 6.70

Albania		Greece	4.30	Norway	6.10
Algeria		Guatemala		Pakistan	
Argentina	3.40	Haiti		Panama	
Armenia		Honduras		Papua New Guinea	
Australia	5.20	Hungary	4.60	Paraguay	
Austria	6.30	Iceland	4.60	Peru	3.10
Azerbaijan		India	3.80	Philippines	3.50
Bangladesh		Indonesia	3.60	Poland	3.60
Belarus		Iran		Portugal	4.70
Belgium	5.00	Ireland	4.90	Romania	
Benin		Israel	4.40	Russian Federation	3.70
Bhutan		Italy	4.60	Rwanda	
Bolivia	3.10	Jamaica		Saudi Arabia	
Botswana		Japan	5.60	Senegal	
Brazil	4.20	Jordan	4.20	Singapore	5.70
Bulgaria	4.20	Kazakhstan		Slovak Republic	4.00
Burkina Faso		Kenya		Slovenia	
Burundi		Korea, South	4.40	South Africa	4.20
Cameroon		Kuwait		Spain	4.50
Canada	5.60	Kyrgyz Republic		Sri Lanka	
Central African Republic		Latvia		Sudan	
Chile	4.30	Lebanon		Sweden	6.40
China	4.80	Libya		Switzerland	6.00
Colombia	4.50	Lithuania		Syria	
Costa Rica	4.60	Macedonia		Tanzania	
Croatia		Madagascar		Thailand	3.60
Cuba		Malawi		Togo	
Czech Republic	4.90	Malaysia	4.30	Trinidad and Tobago	
Denmark	6.70	Mali		Tunisia	
Dominican Republic		Mauritius	4.10	Turkey	4.10
Ecuador	3.40	Mexico	4.10	Uganda	
Egypt	4.10	Moldova		Ukraine	3.70
El Salvador	3.00	Mongolia		United Kingdom	5.50
Estonia		Morocco		United States	5.30
Ethiopia		Mozambique		Uruguay	
Fiji		Nepal		Uzbekistan	
Finland	6.40	Netherlands	6.30	Venezuela	3.00
France	5.50	New Zealand	5.50	Vietnam	4.20
Gabon		Nicaragua		Zambia	
Germany	6.10	Niger		Zimbabwe	3.30
Ghana		Nigeria			

Global Stewardship

Global Scale Funding/Participation

Variable Name: Montreal Protocol Multilateral Fund participation

Variable Code: MONFUN **Variable Number:** 60

Units: Standardized Scale (Z score)

Reference Year: 2000

Source: Report of the Twelfth Meeting of the Sub-Committee on Monitoring, Evaluation and Finance UNEP/OzL.Pro/ExCom /32/3, and Montreal Protocol Unit (MPU), SEED/UNDP.

Logic: Managing global environmental problems requires active participation, both from donors and from funding recipients who implement projects. The Montreal Protocol Multilateral Fund is a major organized effort to finance reductions in production and consumption of ozone-depleting substances.

Details: This score combines payments (contributions to the Montreal Protocol Multilateral Fund and bilateral payments credited under the terms of the Fund) and receipts by countries from the Fund to implement CFC abatement projects. To make payments and receipts comparable, the two were first standardized, and countries were assigned the higher of the two possible Z scores. Payments were normalized by share of United Nations budget, and receipts were normalized by share of total Fund payments. Covers payments and receipts during 1991-1999.

Median: 0.10 **Minimum:** -0.30 **Maximum:** 10.61

Albania	-0.30	Greece	1.62	Norway	1.35
Algeria	-0.30	Guatemala	0.47	Pakistan	-0.29
Argentina	1.41	Haiti	-0.30	Panama	1.74
Armenia	-0.30	Honduras	-0.30	Papua New Guinea	-0.30
Australia	1.54	Hungary	2.15	Paraguay	0.40
Austria	1.26	Iceland	1.40	Peru	0.80
Azerbaijan	5.97	India	-0.19	Philippines	0.46
Bangladesh	-0.27	Indonesia	-0.10	Poland	1.30
Belarus	-0.30	Iran	-0.26	Portugal	0.55
Belgium	1.42	Ireland	1.29	Romania	-0.30
Benin	-0.30	Israel	0.87	Russian Federation	-0.30
Bhutan	-0.30	Italy	0.51	Rwanda	-0.30
Bolivia	-0.07	Jamaica	2.07	Saudi Arabia	-0.30
Botswana	-0.20	Japan	0.86	Senegal	-0.30
Brazil	0.54	Jordan	-0.25	Singapore	0.10
Bulgaria	10.61	Kazakhstan	-0.30	Slovak Republic	5.10
Burkina Faso	-0.30	Kenya	-0.21	Slovenia	-0.16
Burundi	-0.14	Korea, South	-0.30	South Africa	1.09
Cameroon	-0.30	Kuwait		Spain	1.23
Canada	1.75	Kyrgyz Republic	-0.30	Sri Lanka	0.30
Central African Republic	0.03	Latvia	-0.08	Sudan	-0.30
Chile	-0.28	Lebanon	0.63	Sweden	1.69
China	0.03	Libya	-0.30	Switzerland	1.44
Colombia	1.44	Lithuania	7.58	Syria	0.16
Costa Rica	2.51	Macedonia	-0.30	Tanzania	-0.24
Croatia	-0.30	Madagascar	-0.30	Thailand	1.10
Cuba	0.09	Malawi	-0.07	Togo	-0.30
Czech Republic	4.93	Malaysia	6.42	Trinidad and Tobago	2.68
Denmark	1.51	Mali	-0.30	Tunisia	-0.30
Dominican Republic	1.25	Mauritius	4.03	Turkey	-0.30
Ecuador	-0.21	Mexico	1.08	Uganda	-0.28
Egypt	1.37	Moldova	0.19	Ukraine	0.26
El Salvador	0.74	Mongolia	-0.30	United Kingdom	0.90
Estonia	-0.01	Morocco	0.57	United States	1.21
Ethiopia	-0.30	Mozambique	-0.24	Uruguay	3.32
Fiji	-0.30	Nepal	-0.30	Uzbekistan	0.58
Finland	1.64	Netherlands	1.20	Venezuela	1.57
France	0.86	New Zealand	1.67	Vietnam	-0.21
Gabon	1.62	Nicaragua	-0.30	Zambia	-0.18
Germany	0.97	Niger	-0.29	Zimbabwe	-0.29
Ghana	0.21	Nigeria	0.03		

Global Stewardship

Global Scale Funding/Participation Cooperation

Variable Name: Global Environmental Facility Participation

Variable Code: GEF **Variable Number:** 61

Units: Standardized Scale (Z score)

Reference Year: 2000

Source: “GEF Projects – Allocations and Disbursements” www.gefweb.org/Allocations_Disbursements.pdf and “GEF Council December 8-10, 1999, Agenda Item 10, DRAFT ANNUAL REPORT 1999 VOLUME II: FINANCIAL STATEMENT” www.gefweb.org/COUNCIL/GEF_C14/gef_c14_8.pdf

Logic: Managing global environmental problems requires active participation, from both donors and recipients. The GEF represents the most significant global-scale effort to support world-wide environmental protection efforts.

Details: This score combines payments and receipts. To make payments and receipts comparable, the two were first standardized, and countries were assigned the higher of the two possible Z scores. Payments were normalized by share of United Nations budget, and receipts were normalized by share of total GEF payments. Covers payments and receipts during through the entire Phase I period and through October 30, 2000 of Phase 2.

Median: -0.05 **Minimum:** -0.17 **Maximum:** 6.01

Albania	-0.17	Greece	0.14	Norway	0.96
Algeria	-0.12	Guatemala	-0.05	Pakistan	1.92
Argentina	-0.11	Haiti	-0.17	Panama	0.15
Armenia	-0.08	Honduras	-0.03	Papua New Guinea	0.46
Australia	0.26	Hungary	0.09	Paraguay	-0.17
Austria	0.30	Iceland	-0.17	Peru	-0.04
Azerbaijan	0.21	India	0.45	Philippines	0.07
Bangladesh	6.01	Indonesia	-0.17	Poland	0.03
Belarus	0.13	Iran	-0.17	Portugal	0.12
Belgium	0.47	Ireland	0.06	Romania	-0.11
Benin	0.07	Israel	-0.17	Russian Federation	-0.13
Bhutan	2.80	Italy	0.29	Rwanda	-0.17
Bolivia	0.19	Jamaica	0.52	Saudi Arabia	-0.17
Botswana	-0.17	Japan	0.27	Senegal	-0.08
Brazil	-0.11	Jordan	0.81	Singapore	-0.17
Bulgaria	0.33	Kazakhstan	-0.17	Slovak Republic	3.36
Burkina Faso	-0.15	Kenya	-0.16	Slovenia	1.13
Burundi	-0.17	Korea, South	-0.17	South Africa	-0.10
Cameroon	-0.05	Kuwait	-0.17	Spain	-0.02
Canada	0.53	Kyrgyz Republic	-0.17	Sri Lanka	-0.03
Central African Republic	-0.06	Latvia	0.12	Sudan	-0.17
Chile	-0.14	Lebanon	0.13	Sweden	1.02
China	-0.05	Libya	-0.17	Switzerland	0.64
Colombia	-0.17	Lithuania	1.05	Syria	-0.17
Costa Rica	1.47	Macedonia	-0.17	Tanzania	-0.17
Croatia	-0.17	Madagascar	-0.02	Thailand	-0.12
Cuba	-0.08	Malawi	-0.17	Togo	-0.17
Czech Republic	0.98	Malaysia	-0.17	Trinidad and Tobago	-0.17
Denmark	0.95	Mali	-0.10	Tunisia	-0.10
Dominican Republic	-0.02	Mauritius	1.40	Turkey	0.11
Ecuador	0.17	Mexico	-0.01	Uganda	-0.02
Egypt	0.72	Moldova	-0.17	Ukraine	-0.15
El Salvador	-0.12	Mongolia	0.56	United Kingdom	0.41
Estonia	-0.17	Morocco	-0.17	United States	0.19
Ethiopia	-0.17	Mozambique	-0.08	Uruguay	0.62
Fiji	-0.17	Nepal	-0.11	Uzbekistan	-0.16
Finland	0.71	Netherlands	0.79	Venezuela	-0.16
France	0.31	New Zealand	0.39	Vietnam	-0.14
Gabon	-0.17	Nicaragua	0.02	Zambia	-0.17
Germany	0.37	Niger	-0.15	Zimbabwe	0.19
Ghana	0.02	Nigeria	-0.17		

Global Stewardship

Global Scale Funding/Participation

Variable Name: FSC Accredited Forest Area as a Percentage of Total Forest Area

Variable Code: FSC **Variable Number:** 62

Units: FSC Forest Area as Percent of Total Forest Area

Reference Year: 2000

Source: Forest Stewardship Council, personal communication.

Logic: This variable measures the extent to which a country seeks sustainable forestry practices.

Details: A logarithmic transformation of this variable was used in calculating the ESI.

Median: 0 **Minimum:** 0 **Maximum:** 36

Albania	0.00	Greece	0.00	Norway	0.00
Algeria	0.00	Guatemala	3.00	Pakistan	0.00
Argentina	0.00	Haiti	0.00	Panama	0.00
Armenia	0.00	Honduras	0.50	Papua New Guinea	0.01
Australia	0.00	Hungary	0.00	Paraguay	0.00
Austria	0.00	Iceland	0.00	Peru	0.00
Azerbaijan	0.00	India	0.00	Philippines	0.00
Bangladesh	0.00	Indonesia	0.10	Poland	30.00
Belarus	0.00	Iran	0.00	Portugal	0.00
Belgium	0.30	Ireland	0.00	Romania	0.00
Benin	0.00	Israel	0.00	Russian Federation	0.00
Bhutan	0.00	Italy	0.10	Rwanda	0.00
Bolivia	1.30	Jamaica	0.00	Saudi Arabia	0.00
Botswana	0.00	Japan	0.00	Senegal	0.00
Brazil	0.10	Jordan	0.00	Singapore	0.00
Bulgaria	0.00	Kazakhstan	0.00	Slovak Republic	0.00
Burkina Faso	0.00	Kenya	0.00	Slovenia	0.00
Burundi	0.00	Korea, South	0.00	South Africa	9.00
Cameroon	0.00	Kuwait	0.00	Spain	0.00
Canada	0.08	Kyrgyz Republic	0.00	Sri Lanka	0.11
Central African Republic	0.00	Latvia	0.00	Sudan	0.00
Chile	0.00	Lebanon	0.00	Sweden	33.00
China	0.00	Libya	0.00	Switzerland	4.00
Colombia	0.00	Lithuania	0.00	Syria	0.00
Costa Rica	3.00	Macedonia	0.00	Tanzania	0.00
Croatia	1.58	Madagascar	0.00	Thailand	0.00
Cuba	0.00	Malawi	0.00	Togo	0.00
Czech Republic	4.00	Malaysia	0.40	Trinidad and Tobago	0.00
Denmark	0.00	Mali	0.00	Tunisia	0.00
Dominican Republic	0.00	Mauritius	0.00	Turkey	0.00
Ecuador	0.00	Mexico	0.30	Uganda	0.00
Egypt	0.00	Moldova	0.00	Ukraine	0.38
El Salvador	0.00	Mongolia	0.00	United Kingdom	36.00
Estonia	0.00	Morocco	0.00	United States	0.80
Ethiopia	0.00	Mozambique	0.00	Uruguay	0.00
Fiji	0.00	Nepal	0.00	Uzbekistan	0.00
Finland	0.00	Netherlands	20.00	Venezuela	0.00
France	0.01	New Zealand	0.03	Vietnam	0.00
Gabon	0.00	Nicaragua	0.00	Zambia	0.00
Germany	0.80	Niger	0.00	Zimbabwe	0.80
Ghana	0.00	Nigeria	0.00		

Global Stewardship

Protecting the Global Commons

Variable Name: Ecological Footprint “Deficit”

Variable Code: FOOT **Variable Number:** 63

Units: Area Units (hectares of biologically productive space with world-average productivity)/person

Reference Year: 1996

Source: World Wide Fund for Nature (WWF), *Living Planet Report 2000*, Gland, Switzerland: WWF, 2000.

Logic: The ecological footprint is a measure of a country’s impact on global environmental resources. A negative number (deficit) indicates that a country requires more land area than it actually has in order to support its economy, and a positive number means that it has a surplus of biologically productive land.

Details: The amount by which the ecological footprint of the country’s population exceeds the biological capacity of the space available to that population.

Median: -0.53 **Minimum:** -12.21 **Maximum:** 31.72

Albania	-0.48	Greece	-3.83	Norway	0.01
Algeria	-1.21	Guatemala	0.36	Pakistan	-0.40
Argentina	1.31	Haiti	-0.48	Panama	1.82
Armenia	-0.47	Honduras	0.83	Papua New Guinea	30.20
Australia	0.93	Hungary	-1.94	Paraguay	2.68
Austria	-1.30	Iceland		Peru	7.90
Azerbaijan	-1.54	India	-0.32	Philippines	-0.54
Bangladesh	-0.52	Indonesia	1.70	Poland	-3.05
Belarus	-1.80	Iran	-1.71	Portugal	-2.76
Belgium		Ireland	-2.72	Romania	-1.10
Benin	0.58	Israel	-4.64	Russian Federation	-1.26
Bhutan	1.82	Italy	-3.59	Rwanda	-0.48
Bolivia	11.96	Jamaica	-1.95	Saudi Arabia	-5.74
Botswana	0.24	Japan	-5.08	Senegal	-0.11
Brazil	8.96	Jordan	-1.50	Singapore	-12.21
Bulgaria	-1.80	Kazakhstan	-2.40	Slovak Republic	-1.92
Burkina Faso	-0.11	Kenya	-0.59	Slovenia	-2.77
Burundi	-0.25	Korea, South	-4.86	South Africa	-2.65
Cameroon	3.35	Kuwait	-9.67	Spain	-2.98
Canada	3.50	Kyrgyz Republic	-0.37	Sri Lanka	-0.43
Central African Republic	13.38	Latvia	0.33	Sudan	0.62
Chile	-1.38	Lebanon	-2.50	Sweden	0.48
China	-0.96	Libya	-3.78	Switzerland	-4.33
Colombia	3.76	Lithuania	-1.04	Syria	-1.46
Costa Rica	-0.60	Macedonia	-2.05	Tanzania	0.33
Croatia	-0.17	Madagascar	2.00	Thailand	-1.35
Cuba	-0.98	Malawi	-0.10	Togo	0.00
Czech Republic	-3.37	Malaysia	0.29	Trinidad and Tobago	-1.66
Denmark	-4.19	Mali	0.41	Tunisia	-1.05
Dominican Republic	-0.34	Mauritius	-0.23	Turkey	-1.24
Ecuador	1.74	Mexico	-1.04	Uganda	0.13
Egypt	-1.06	Moldova	-0.77	Ukraine	-2.49
El Salvador	-0.87	Mongolia	1.37	United Kingdom	-4.46
Estonia	-3.10	Morocco	-0.57	United States	-6.66
Ethiopia	-0.18	Mozambique	0.35	Uruguay	0.22
Fiji		Nepal	-0.07	Uzbekistan	-1.70
Finland	1.32	Netherlands	-3.35	Venezuela	3.01
France		New Zealand	6.26	Vietnam	-0.30
Gabon	31.72	Nicaragua	2.96	Zambia	3.03
Germany	-3.01	Niger	-0.56	Zimbabwe	-0.77
Ghana	0.08	Nigeria	-0.43		

Global Stewardship

Protecting the Global Commons

Variable Name: CO2 Emissions (total times per capita)

Variable Code: CO2_EM **Variable Number:** 64

Units: Metric Tons

Reference Year: 1997

Source: Carbon Dioxide Information Analysis Center, available at <http://cdiac.esd.ornl.gov/>

Logic: Carbon dioxide is the most significant greenhouse gas. This variable combines total and per capita emissions, reflecting two ways to measure global responsibility.

Details: The indicator was obtained by multiplying the Total CO2 emissions from fossil-fuels (thousand metric tons of C) with the Per capita CO2 emissions (metric tons of carbon). A logarithmic transformation of this variable was used in calculating the ESI.

Median: 5780.36 **Minimum:** 0.61 **Maximum:** 8163271.04

Albania	60.48
Algeria	22,856.24
Argentina	39,510.45
Armenia	159.18
Australia	406,642.56
Austria	33,776.28
Azerbaijan	9,910.02
Bangladesh	334.15
Belarus	27,146.34
Belgium	78,193.06
Benin	8.12
Bhutan	5.35
Bolivia	1,121.76
Botswana	540.44
Brazil	37,759.68
Bulgaria	21,523.20
Burkina Faso	5.30
Burundi	0.61
Cameroon	32.35
Canada	591,793.80
Central African Republic	1.32
Chile	17,313.56
China	685,326.00
Colombia	8,533.46
Costa Rica	487.80
Croatia	6,020.40
Cuba	4,249.48
Czech Republic	108,858.75
Denmark	45,063.40
Dominican Republic	1,624.05
Ecuador	2,552.54
Egypt	13,721.34
El Salvador	372.25
Estonia	18,337.56
Ethiopia	5.17
Fiji	53.56
Finland	45,614.86
France	147,676.02
Gabon	727.20
Germany	629,798.28
Ghana	66.36

Greece	45,816.16
Guatemala	419.40
Haiti	18.95
Honduras	214.51
Hungary	24,763.44
Iceland	1,195.48
India	81,170.71
Indonesia	20,832.96
Iran	95,873.70
Ireland	27,025.92
Israel	41,445.46
Italy	215,966.62
Jamaica	3,396.48
Japan	793,571.64
Jordan	2,413.53
Kazakhstan	68,280.84
Kenya	108.78
Korea, South	297,587.55
Kuwait	107,585.64
Kyrgyz Republic	674.88
Latvia	2,001.60
Lebanon	5,891.00
Libya	24,935.34
Lithuania	4,389.43
Macedonia	4,287.99
Madagascar	3.28
Malawi	3.96
Malaysia	60,707.00
Mali	1.31
Mauritius	190.65
Mexico	105,961.84
Moldova	1,842.75
Mongolia	1,745.49
Morocco	2,784.64
Mozambique	6.06
Nepal	11.06
Netherlands	125,244.48
New Zealand	19,191.92
Nicaragua	149.58
Niger	9.06
Nigeria	4,935.70

Norway	77,574.00
Pakistan	4,605.84
Panama	1,608.53
Papua New Guinea	100.35
Paraguay	208.20
Peru	2,635.05
Philippines	5,669.72
Poland	235,670.11
Portugal	18,525.14
Romania	38,207.00
Russian Federation	1,035,132.40
Rwanda	2.70
Saudi Arabia	270,857.68
Senegal	85.50
Singapore	139,998.51
Slovak Republic	18,786.02
Slovenia	8,464.54
South Africa	192,966.36
Spain	111,861.12
Sri Lanka	230.56
Sudan	39.52
Sweden	18,899.70
Switzerland	16,875.04
Syria	11,319.57
Tanzania	13.46
Thailand	54,142.40
Togo	10.95
Trinidad and Tobago	28,116.55
Tunisia	2,225.09
Turkey	45,935.70
Uganda	2.92
Ukraine	197,841.19
United Kingdom	342,451.36
United States	8,163,271.04
Uruguay	661.05
Uzbekistan	33,523.20
Venezuela	115,074.00
Vietnam	1,739.25
Zambia	53.60
Zimbabwe	2,185.92

Global Stewardship

Protecting the Global Commons

Variable Name: Historic Cumulative CO2 Emissions

Variable Code: CO2HIS **Variable Number:** 65

Units: Metric Tons

Reference Year: 1997

Source: Carbon Dioxide Information Analysis Center, available at <http://cdiac.esd.ornl.gov/>

Logic: Given the long atmospheric lifetime of CO2, historic emissions represent an important factor in climate change.

Details: Historic carbon-dioxide emissions data were utilized, applying an annual decay rate of .9926, which is consistent with the estimate that 80 percent of any given carbon-dioxide emission remains in the atmosphere after 30 years. A logarithmic transformation of this variable was used in calculating the ESI.

Median: 16688.55 **Minimum:** 120.56 **Maximum:** 2961127.75

Albania	1,008.45
Algeria	60,924.54
Argentina	77,116.71
Armenia	1,546.22
Australia	173,397.53
Austria	33,683.03
Azerbaijan	17,231.66
Bangladesh	13,184.42
Belarus	34,313.61
Belgium	58,960.83
Benin	541.73
Bhutan	231.83
Bolivia	6,761.45
Botswana	1,751.77
Brazil	165,229.50
Bulgaria	28,401.88
Burkina Faso	527.05
Burundi	120.56
Cameroon	1,348.58
Canada	267,360.26
Central African Republic	129.53
Chile	30,130.43
China	1,962,527.17
Colombia	39,137.02
Costa Rica	2,864.11
Croatia	10,645.19
Cuba	16,621.52
Czech Republic	68,734.85
Denmark	34,223.47
Dominican Republic	7,501.50
Ecuador	13,506.01
Egypt	63,080.36
El Salvador	3,002.19
Estonia	10,458.04
Ethiopia	1,207.16
Fiji	438.15
Finland	31,674.15
France	196,669.68
Gabon	1,681.15
Germany	471,169.60
Ghana	2,583.21

Greece	47,768.68
Guatemala	4,206.87
Haiti	662.88
Honduras	2,464.83
Hungary	32,957.78
Iceland	1,191.47
India	573,969.71
Indonesia	142,539.06
Iran	168,386.62
Ireland	19,876.32
Israel	32,291.61
Italy	229,549.39
Jamaica	5,819.15
Japan	657,751.13
Jordan	8,442.42
Kazakhstan	72,319.25
Kenya	4,011.08
Korea, South	243,100.00
Kuwait	28,706.76
Kyrgyz Republic	3,610.49
Latvia	4,790.81
Lebanon	9,368.47
Libya	25,310.18
Lithuania	8,261.24
Macedonia	6,233.58
Madagascar	668.92
Malawi	432.39
Malaysia	75,572.63
Mali	265.02
Mauritius	937.48
Mexico	204,256.06
Moldova	5,992.58
Mongolia	4,309.27
Morocco	19,383.48
Mozambique	627.58
Nepal	1,154.62
Netherlands	91,134.14
New Zealand	16,755.58
Nicaragua	1,710.41
Niger	608.94
Nigeria	75,148.68

Norway	55,844.63
Pakistan	53,568.92
Panama	3,568.59
Papua New Guinea	1,321.14
Paraguay	2,160.88
Peru	15,100.14
Philippines	41,303.25
Poland	196,634.79
Portugal	28,783.64
Romania	63,170.06
Russian Federation	809,347.32
Rwanda	270.40
Saudi Arabia	81,328.47
Senegal	1,892.38
Singapore	42,257.25
Slovak Republic	21,389.96
Slovenia	8,266.72
South Africa	168,507.98
Spain	136,735.34
Sri Lanka	4,259.69
Sudan	2,072.70
Sweden	28,337.90
Switzerland	22,946.15
Syria	28,867.57
Tanzania	1,552.85
Thailand	120,899.06
Togo	524.13
Trinidad and Tobago	13,470.81
Tunisia	10,333.83
Turkey	114,672.43
Uganda	604.62
Ukraine	208,956.66
United Kingdom	297,179.93
United States	2,961,127.75
Uruguay	3,115.83
Uzbekistan	57,024.21
Venezuela	108,769.35
Vietnam	25,247.68
Zambia	1,420.11
Zimbabwe	10,267.46

Global Stewardship

Protecting the Global Commons

Variable Name: CFC Consumption (total times per capita)

Variable Code: CFC **Variable Number:** 66

Units: Ozone Depletion Potential (ODP) tons (Metric Tons x ODP)

Reference Year: MRYA 1996-98

Source: UNEP, Production and Consumption of Ozone Depleting Substances, 1986-1998, October 1999.

Logic: Emissions of CFCs contribute to the breakdown of the Earth's protective ozone layer and to global climate change. This variable combines total and per capita emission, reflecting the long atmospheric lifetime of CFCs.

Details: The indicator was obtained by multiplying the Total CFCs emissions (metric tons times ozone depletion potential) with the Per capita CFCs emissions (obtained by dividing the total CFCs emissions by the population in 1997). A logarithmic transformation of this variable was used in calculating the ESI.

Median: 3096.17 **Minimum:** 0 **Maximum:** 2096731.55

Albania		Greece		Norway	58.24
Algeria	81,627.89	Guatemala	2,225.37	Pakistan	11,091.52
Argentina	31,916.38	Haiti		Panama	43,976.07
Armenia		Honduras	1,638.72	Papua New Guinea	288.08
Australia	0.22	Hungary	0.10	Paraguay	2,509.55
Austria		Iceland	0.00	Peru	4,388.27
Azerbaijan	5,286.64	India	46,502.34	Philippines	105,641.32
Bangladesh	5,643.89	Indonesia	88,310.73	Poland	2,451.70
Belarus	6,331.14	Iran	480,228.61	Portugal	
Belgium		Ireland		Romania	15,021.65
Benin	34.82	Israel	0.00	Russian Federation	817,386.43
Bhutan		Italy		Rwanda	
Bolivia	272.19	Jamaica	15,736.64	Saudi Arabia	142,831.18
Botswana	31.81	Japan	101.31	Senegal	1,867.71
Brazil	588,838.63	Jordan	119,897.02	Singapore	84.33
Bulgaria	0.00	Kazakhstan		Slovak Republic	0.19
Burkina Faso	124.44	Kenya	2,214.78	Slovenia	0.00
Burundi	643.81	Korea, South	1,858,868.33	South Africa	619.83
Cameroon	4,855.01	Kuwait	135,805.16	Spain	
Canada	58.29	Kyrgyz Republic		Sri Lanka	3,420.18
Central African Republic	0.00	Latvia	214.94	Sudan	3,378.16
Chile	37,241.22	Lebanon	71,790.14	Sweden	
China	2,096,731.55	Libya	80,339.88	Switzerland	231.85
Colombia	37,414.36	Lithuania	2,919.55	Syria	279,497.02
Costa Rica	11,103.16	Macedonia	1,997.95	Tanzania	1,125.00
Croatia	1,649.37	Madagascar	739.80	Thailand	239,571.46
Cuba	39,953.99	Malawi	322.74	Togo	
Czech Republic	11.75	Malaysia	259,617.88	Trinidad and Tobago	19,060.25
Denmark		Mali	1,180.63	Tunisia	67,931.19
Dominican Republic	11,944.58	Mauritius	1,342.64	Turkey	236,217.77
Ecuador	6,197.71	Mexico	128,672.29	Uganda	6.05
Egypt	36,637.74	Moldova	365.59	Ukraine	23,739.77
El Salvador	6,433.23	Mongolia	157.67	United Kingdom	
Estonia	3,385.93	Morocco	29,193.18	United States	23,385.16
Ethiopia	24.80	Mozambique	26.24	Uruguay	11,525.63
Fiji	249.25	Nepal	37.69	Uzbekistan	121.02
Finland		Netherlands		Venezuela	602,347.63
France		New Zealand	0.00	Vietnam	3,272.79
Gabon	126.65	Nicaragua	292.60	Zambia	97.96
Germany		Niger	356.53	Zimbabwe	16,872.89
Ghana	134.00	Nigeria	218,257.67		

Global Stewardship

Protecting the Global Commons

Variable Name: S02 Exports

Variable Code: SO2EXP

Variable Number: 67

Units: 100 Metric Tons

Reference Year: 1997 (Asia) and 1998 (Europe)

Source: International Institute for Applied Systems Analysis, RAINS-ASIA and Co-operative Programme for monitoring and evaluation of the long range transmission of air pollutants in Europe (EMEP).

Logic: The transport of sulphur emissions across national boundaries contributes to poor air quality and acid rain in receiving countries.

Details:

Median: 538

Minimum: 4.12

Maximum: 12300

Albania	307.00
Algeria	
Argentina	
Armenia	12.00
Australia	
Austria	175.00
Azerbaijan	
Bangladesh	238.00
Belarus	628.00
Belgium	832.00
Benin	
Bhutan	4.12
Bolivia	
Botswana	
Brazil	
Bulgaria	4,974.00
Burkina Faso	
Burundi	
Cameroon	
Canada	
Central African Republic	
Chile	
China	12,300.00
Colombia	
Costa Rica	
Croatia	367.00
Cuba	
Czech Republic	1,762.00
Denmark	326.00
Dominican Republic	
Ecuador	
Egypt	
El Salvador	
Estonia	496.00
Ethiopia	
Fiji	
Finland	245.00
France	2,537.00
Gabon	
Germany	4,448.00
Ghana	

Greece	2,029.00
Guatemala	
Haiti	
Honduras	
Hungary	2,348.00
Iceland	110.00
India	3,400.00
Indonesia	1,320.00
Iran	
Ireland	565.00
Israel	
Italy	3,876.00
Jamaica	
Japan	1,420.00
Jordan	
Kazakhstan	
Kenya	
Korea, South	438.00
Kuwait	
Kyrgyz Republic	
Latvia	155.00
Lebanon	
Libya	
Lithuania	363.00
Macedonia	71.00
Madagascar	
Malawi	
Malaysia	401.00
Mali	
Mauritius	
Mexico	
Moldova	143.00
Mongolia	69.00
Morocco	
Mozambique	
Nepal	188.00
Netherlands	425.00
New Zealand	
Nicaragua	
Niger	
Nigeria	

Norway	98.00
Pakistan	420.00
Panama	
Papua New Guinea	
Paraguay	
Peru	
Philippines	723.00
Poland	5,849.00
Portugal	1,349.00
Romania	2,768.00
Russian Federation	4,148.00
Rwanda	
Saudi Arabia	
Senegal	
Singapore	642.00
Slovak Republic	746.00
Slovenia	538.00
South Africa	
Spain	5,201.00
Sri Lanka	81.50
Sudan	
Sweden	144.00
Switzerland	94.00
Syria	
Tanzania	
Thailand	
Togo	
Trinidad and Tobago	
Tunisia	
Turkey	3,465.00
Uganda	
Ukraine	3,560.00
United Kingdom	5,591.00
United States	
Uruguay	
Uzbekistan	
Venezuela	
Vietnam	201.00
Zambia	
Zimbabwe	