

Chapter 10

Evaluation and Comparative Analysis on ECC

10.1 Evaluation Results of ECC

According to the evaluation indicator system and the mathematic model of ECC, the evaluation and analysis are made on ECC in 2012. Table 10.1 lists the rankings and scores of ECC in 2012 and Fig. 10.1 displays the ECC scores of the six continents as well as the top three countries of each continent in 2012.

According to Table 10.1, the countries with ECC ranking 1st–10th include Madagascar, France, Guinea, Mauritius, Mali, Germany, Switzerland, Mauritania, Uruguay and Slovak Republic; the 11th–20th rankings are United States, Belgium, Morocco, United Kingdom, Sweden, El Salvador, Haiti, Argentina, Croatia and Slovenia; the 21st–30th rankings are Norway, Netherlands, Denmark, Greece, Ethiopia, Spain, Italy, Austria, Romania and South Africa; and the bottom ten countries are Kazakhstan, Kuwait, Jordan, Moldova, Mongolia, Niger, Estonia, Qatar, United Arab Emirates and Singapore.

In 2012, the highest score of ECC is 82.4 points, the lowest score is 43.1, the average score is 67.0 and the standard deviation is 5.3. The highest score and the lowest score differ largely with the margin of 39.3 points. 68 countries score higher than the average point. It indicates that the overall level of ECC is rather high and the differences are very little among the countries except for individual countries.

The scores of ECC show even distribution with little differences among the countries. Only one country scores above 80 points, namely Madagascar; 36 countries score 70–80; 84 countries score 60–70; 10 countries score 50–60; 2 countries score 40–50; and no country scores below 40 points.

The countries with higher ECC are almost equally divided between developed and developing countries. Among the 30 countries ranking ahead, there are 16 developed country and 14 developing countries. However, some developed countries' scores are very low on ECC. Among the 10 countries ranking behind (No. 124–133), 4 are developed countries, of which, they also rank in the last 4 places (No. 130–133), namely Estonia, Qatar, United Arab Emirates and Singapore.

Table 10.1 Scores and rankings of ECC as well as the tertiary and individual indicators in 2012

Indicators Countries	ECC						Net exports of goods as a percentage of GDP	Electric power consumption per unit of value added of industry	SO ₂ emissions per unit of value added of industry
		Agri-cultural carrying	Cereal yield per unit of arable land	Fertilizer consumption per unit of arable land	Annual freshwater withdrawals for agriculture per unit of arable land	Industrial carrying			
Madagascar	82.4	69.9	29.5	99.8	93.8	93.6	90.6	N/A	99.0
	1	46	65	10	100	39	19	N/A	119
France	77.6	86.7	75.9	88.0	99.7	92.5	86.8	90.1	100.0
	2	4	6	93	40	52	35	84	26
Guinea	77.6	64.4	11.7	100.0	99.3	93.2	79.6	96.6	100.0
	3	92	107	3	54	47	72	21	8
Mauritius	76.0	54.9	7.1	83.1	90.4	95.3	87.4	N/A	99.6
	4	125	119	106	110	14	31	N/A	93
Mali	75.7	65.1	14.0	99.7	98.7	90.4	84.2	N/A	N/A
	5	80	101	12	67	80	51	N/A	N/A
Germany	75.2	84.2	71.6	85.3	100.0	91.6	74.0	95.7	100.0
	6	5	10	98	2	66	91	27	13
Switzerland	74.7	81.1	64.5	84.6	99.8	93.3	77.5	96.9	100.0
	7	8	13	102	30	44	84	18	4
Mauritania	74.5	61.0	6.5	99.7	94.9	87.7	64.9	N/A	100.0
	8	111	121	15	94	97	110	N/A	1
Uruguay	74.5	73.5	43.8	89.4	97.3	93.2	82.9	91.3	99.9
	9	28	34	88	79	46	56	69	31
Slovak Republic	73.6	72.9	38.2	92.3	100.0	85.1	48.2	93.5	99.9
	10	30	47	76	8	111	129	49	32
United States	73.4	86.7	74.7	91.2	98.2	93.7	93.8	89.9	99.9
	11	3	7	84	72	36	7	86	48
Belgium	73.1	90.9	100.0	69.7	99.9	81.7	41.0	92.7	100.0
	12	2	1	118	18	122	132	59	21
Morocco	72.9	64.8	13.3	98.3	100.0	92.4	78.2	92.4	99.6
	13	85	105	37	12	54	82	60	95
United Kingdom	72.5	83.8	74.3	80.7	99.7	95.1	87.7	93.8	100.0
	14	6	8	110	39	18	30	43	27
Sweden	72.4	77.0	46.8	94.4	99.9	91.8	78.0	90.8	100.0
	15	18	32	68	16	61	83	73	9
El Salvador	72.2	67.9	27.5	91.3	98.3	93.5	85.5	93.4	99.9
	16	57	68	82	71	43	41	51	50
Haiti	72.0	62.0	6.9	98.8	98.6	95.6	90.6	98.0	99.8
	17	103	120	33	68	12	18	9	74
Argentina	72.0	79.7	51.5	97.9	99.1	94.2	88.2	92.2	100.0
	18	11	25	41	58	28	29	62	25
Croatia	71.7	77.1	57.7	80.0	100.0	94.0	86.5	90.5	99.9
	19	17	20	113	6	31	37	77	57

Annual freshwater withdrawals for industry per value added of industry	Energy consumption					Greenhouse gas					CO ₂ emissions per unit of energy consumption
		Energy consumption per unit of land area	Ratio of clean energy consumption	Elasticity of energy consumption	Elasticity of electric power consumption		Growth rate of CO ₂ emissions	Growth rate of Methane emissions	CO ₂ emissions per unit of land area		
91.2	N/A	N/A	0.0	N/A	N/A	84.4	76.7	N/A	100.0	N/A	
111	N/A	N/A	116	N/A	N/A	2	7	N/A	5	N/A	
93.2	51.6	99.0	75.0	15.5	17.1	67.5	56.7	59.6	99.3	65.3	
102	4	110	2	17	15	31	47	59	106	28	
96.5	0.0	N/A	0.0	N/A	N/A	73.7	60.6	N/A	100.0	N/A	
77	127	N/A	116	N/A	N/A	13	36	N/A	10	N/A	
99.0	N/A	N/A	0.0	N/A	N/A	78.8	69.2	N/A	98.0	N/A	
38	N/A	N/A	116	N/A	N/A	5	18	N/A	119	N/A	
96.5	N/A	N/A	0.0	N/A	N/A	69.5	54.2	N/A	100.0	N/A	
78	N/A	N/A	116	N/A	N/A	23	55	N/A	1	N/A	
96.9	50.0	98.0	22.3	22.2	57.7	62.0	56.4	62.1	97.6	37.5	
72	5	117	29	5	3	63	48	37	123	79	
98.9	47.7	98.6	66.9	14.6	10.7	64.1	52.7	59.8	98.8	56.4	
42	7	114	4	27	65	49	61	56	115	39	
98.1	N/A	N/A	0.0	N/A	N/A	75.1	62.7	N/A	100.0	N/A	
57	N/A	N/A	116	N/A	N/A	10	30	N/A	3	N/A	
98.8	36.0	100.0	19.0	14.2	11.0	86.2	100.0	70.9	100.0	60.0	
47	38	24	35	41	51	1	1	10	33	33	
98.8	70.0	99.2	41.9	51.4	87.4	61.1	48.0	62.2	99.2	47.9	
45	2	107	16	2	2	72	79	36	108	52	
91.2	35.4	99.5	20.2	13.5	8.5	61.2	52.6	66.5	99.3	34.7	
113	42	98	32	96	111	71	62	18	105	88	
93.2	45.7	95.7	37.1	21.0	28.9	61.0	47.6	59.4	96.1	54.2	
101	9	123	18	6	6	74	80	66	126	43	
99.5	75.7	99.9	2.9	100.0	100.0	53.0	43.1	54.5	99.9	24.3	
22	1	37	82	1	1	121	97	90	52	111	
98.8	34.8	98.2	16.8	13.3	10.8	59.5	51.9	60.3	97.8	35.7	
44	48	116	38	103	56	85	66	54	122	86	
98.5	49.0	99.7	73.2	13.1	10.2	59.5	26.0	68.0	99.9	77.9	
49	6	75	3	107	86	84	127	15	55	15	
95.2	43.1	99.6	48.1	14.4	10.4	76.1	74.6	67.3	99.7	64.2	
91	17	90	10	32	78	8	11	17	80	29	
94.0	41.9	99.8	1.2	19.3	47.5	81.8	85.0	61.0	99.9	77.8	
95	19	57	97	8	4	3	2	49	47	16	
96.3	34.1	99.9	11.6	14.2	10.6	65.0	54.6	77.2	99.9	38.8	
81	60	27	49	44	76	43	52	4	44	76	
99.2	34.6	99.7	11.6	13.8	13.2	67.1	69.8	55.8	99.6	40.3	
29	52	84	48	77	24	34	16	86	88	70	

(continued)

Table 10.1 (continued)

Indicators Countries	ECC						Indus- trial carrying	Net exports of goods as a percentage of GDP	Electric power consum- ption per unit of value added of industry	SO ₂ emissions per unit of value added of industry
		Agri- cultural carrying	Cereal yield per unit of arable land	Fertilizer consum- ption per unit of arable land	Annual freshwater withdrawals for agriculture per unit of arable land					
Slovenia	71.6	79.4	63.2	80.4	100.0	87.1	63.5	92.0	99.9	
	20	13	14	112	5	102	113	65	41	
Norway	71.5	70.4	38.7	84.5	98.4	93.2	79.2	94.5	100.0	
	21	43	45	103	69	45	76	40	3	
Netherlands	71.5	91.2	92.6	80.5	99.9	87.2	59.8	95.1	100.0	
	22	1	3	111	20	100	117	33	11	
Denmark	71.3	82.4	62.3	91.7	99.9	93.6	78.5	95.9	100.0	
	23	7	15	79	25	40	81	26	10	
Greece	71.2	76.9	51.2	93.2	94.8	95.7	93.3	90.4	99.7	
	24	19	26	73	95	10	9	78	84	
Ethiopia	70.8	65.5	14.7	99.4	99.5	93.6	94.6	81.5	99.4	
	25	78	100	25	47	41	6	111	106	
Spain	70.8	69.8	32.3	92.2	97.6	94.1	87.3	92.1	99.9	
	26	48	59	78	75	30	34	63	56	
Italy	70.8	78.2	57.2	89.0	95.5	93.9	84.9	94.8	100.0	
	27	14	21	90	90	33	45	37	17	
Austria	70.8	80.5	56.3	93.3	99.9	91.5	74.3	94.8	100.0	
	28	9	22	72	22	70	90	36	5	
Romania	70.7	72.1	33.4	96.1	99.8	90.9	79.1	93.1	99.6	
	29	34	55	58	32	74	77	52	90	
South Africa	70.6	75.6	42.8	96.0	99.0	91.9	85.6	83.6	99.3	
	30	24	36	59	62	59	40	107	109	
Dominican Republic	70.3	75.5	43.6	97.8	95.7	96.5	93.1	93.5	99.8	
	31	25	35	42	89	5	11	48	71	
Canada	70.2	72.9	35.2	96.2	99.8	91.7	83.6	91.4	99.9	
	32	32	51	55	31	65	53	67	51	
Myanmar	70.2	74.9	40.8	99.6	95.8	98.3	100.0	96.3	99.9	
	33	26	40	17	87	1	1	24	37	
Ireland	70.2	80.2	79.4	61.4	99.9	90.0	63.6	97.4	100.0	
	34	10	4	121	23	82	112	12	20	
Japan	70.2	72.9	61.9	81.0	79.6	96.2	91.2	95.0	100.0	
	35	31	16	108	124	6	15	35	12	
Armenia	70.1	65.0	19.2	97.6	93.4	90.8	91.8	79.4	99.5	
	36	82	88	46	102	76	13	112	103	
Portugal	70.0	67.5	34.9	87.1	91.4	92.6	84.3	90.9	99.9	
	37	60	52	94	107	51	48	70	54	
Guatemala	69.9	65.6	21.7	91.3	98.3	95.2	86.1	98.1	98.7	
	38	77	84	81	70	16	38	8	121	

Annual freshwater withdrawals for industry per value added of industry	Energy consumption						Greenhouse gas			
		Energy consumption per unit of land area	Ratio of clean energy consumption	Elasticity of energy consumption	Elasticity of electric power consumption	Growth rate of CO ₂ emissions		Growth rate of Methane emissions	CO ₂ emissions per unit of land area	CO ₂ emissions per unit of energy consumption
93.0	44.1	99.2	46.6	14.6	15.9	64.2	58.4	61.7	99.2	43.3
103	14	106	11	25	16	45	41	41	110	63
99.2	47.1	99.8	66.1	12.6	10.0	65.2	47.4	61.4	99.9	69.8
32	8	66	5	114	95	41	81	43	59	23
93.8	32.0	94.7	3.4	16.7	13.1	57.8	46.5	62.5	93.8	39.9
98	85	124	78	11	26	100	84	35	129	71
99.9	29.7	99.0	5.6	8.4	5.8	63.0	59.4	63.0	98.8	34.1
7	123	109	67	124	118	59	38	34	116	91
99.6	32.0	99.5	5.2	13.5	9.6	65.2	76.3	57.4	99.3	16.5
17	87	92	69	94	101	42	8	76	107	121
98.9	34.3	99.9	1.7	14.6	20.9	81.2	75.9	54.1	100.0	100.0
43	57	35	90	26	10	4	9	93	11	1
97.0	38.3	99.5	26.9	14.2	12.8	69.7	72.6	59.8	99.4	44.0
70	30	99	26	42	28	20	14	58	100	61
95.7	34.3	98.8	10.1	15.2	13.3	61.4	55.5	60.4	98.5	37.1
86	56	112	55	19	22	67	50	53	117	80
96.7	39.3	99.1	20.4	18.0	19.6	56.6	39.6	59.5	99.1	45.5
74	27	108	31	9	12	107	109	64	113	58
91.8	39.3	99.7	21.9	14.5	21.1	69.6	70.5	64.8	99.6	42.3
109	26	83	30	29	8	21	15	24	87	65
99.2	32.4	99.8	4.2	14.4	11.0	69.2	74.8	65.1	99.7	31.5
31	73	69	72	31	49	24	10	23	81	99
99.6	31.4	99.6	2.7	13.8	9.6	62.1	54.6	61.2	99.6	40.4
16	96	87	87	75	102	62	51	44	90	68
92.1	40.6	99.9	37.1	14.1	11.3	63.7	55.9	63.4	99.9	43.1
107	23	28	19	46	41	52	49	31	43	64
97.1	31.8	100.0	4.1	14.3	8.8	59.6	26.7	56.3	100.0	88.2
68	91	22	73	38	110	82	124	84	19	9
99.0	32.2	99.6	4.0	14.2	11.2	63.7	62.9	66.3	99.4	27.1
40	78	91	75	43	45	51	28	19	103	107
98.8	37.4	97.1	30.0	13.5	9.1	60.0	50.8	63.6	96.5	38.2
48	34	119	22	95	108	79	74	29	124	78
92.6	44.7	99.8	54.0	15.0	10.1	72.0	73.0	57.0	99.8	57.0
105	11	58	7	21	89	15	12	78	64	38
95.5	34.4	99.5	11.3	13.3	13.7	75.3	82.9	65.8	99.4	45.6
90	54	100	50	100	18	9	3	21	98	57
98.0	31.5	99.8	3.0	12.9	10.3	76.9	76.7	52.3	99.9	75.3
58	95	63	79	110	82	7	6	103	50	19

(continued)

Table 10.1 (continued)

Countries	ECC	Indicators						
		Agri-cultural carrying	Cereal yield per unit of arable land	Fertilizer consumption per unit of arable land	Annual freshwater withdrawals for agriculture per unit of arable land	Industrial carrying	Net exports of goods as a percentage of GDP	Electric power consumption per unit of value added of industry
Albania	69.8	76.9	49.5	92.8	97.4	86.1	90.6	72.2
	39	20	29	74	78	105	20	117
Cameroon	69.8	65.8	15.1	99.4	99.8	97.0	94.9	94.4
	40	73	97	21	29	4	5	41
Togo	69.6	63.6	9.2	99.7	100.0	93.7	85.2	90.6
	41	98	114	13	13	35	44	75
Gabon	69.5	66.1	15.9	99.5	99.8	95.7	83.3	99.7
	42	71	94	19	37	11	55	5
Brazil	69.2	73.4	41.6	89.9	99.3	96.2	93.5	93.6
	43	29	38	86	53	7	8	45
Indonesia	69.2	74.1	50.8	85.3	94.0	94.8	84.8	96.9
	44	27	27	97	98	21	46	17
Benin	69.1	64.6	11.6	100.0	100.0	94.4	90.8	91.4
	45	86	108	2	10	26	17	68
Finland	68.8	69.8	31.2	91.3	100.0	91.7	81.1	88.4
	46	47	61	83	9	63	66	90
Paraguay	68.7	72.3	34.8	94.6	99.9	91.6	84.8	82.8
	47	33	53	67	24	67	47	108
Nepal	68.7	66.8	21.7	99.9	93.8	95.3	97.0	87.1
	48	64	85	6	99	15	3	95
Oman	68.5	76.4	97.2	80.9	44.2	89.1	58.9	97.6
	49	22	2	109	128	89	118	10
Mexico	68.3	71.8	35.3	95.8	96.3	93.5	80.9	95.6
	50	39	50	60	84	42	68	28
Hungary	68.3	77.8	49.5	93.5	99.9	81.8	49.2	92.3
	51	15	30	71	21	121	127	61
Sudan	68.2	59.3	0.9	99.4	97.3	98.1	97.5	96.8
	52	121	131	23	80	2	2	20
Venezuela, RB	68.2	71.0	41.4	83.8	97.7	94.5	81.7	96.9
	53	41	39	105	74	25	65	19
Cambodia	68.1	71.9	30.9	99.4	99.2	89.7	66.9	93.4
	54	36	63	20	55	85	106	50
New Zealand	68.0	58.3	79.2	0.4	88.5	93.8	85.4	90.4
	55	123	5	129	114	34	43	80
Colombia	68.0	62.4	39.3	59.3	96.3	97.3	89.0	100.0
	56	101	43	123	83	3	26	2
Chile	67.9	71.9	72.8	51.8	90.8	92.7	79.3	95.1
	57	37	9	125	109	50	75	99

Annual freshwater withdrawals for industry per value added of industry	Energy consumption						Greenhouse gas				CO_2 emissions per unit of energy consumption
		Energy consumption per unit of land area	Ratio of clean energy consumption	Elasticity of energy consumption	Elasticity of electric power consumption	Growth rate of CO_2 emissions		Growth rate of Methane emissions	CO_2 emissions per unit of land area		
81.7	44.3	99.8	45.0	14.0	18.2	60.2	46.0	56.8	99.8	52.3	
123	12	53	12	59	13	76	86	80	62	44	
98.9	33.3	100.0	8.5	11.3	13.4	71.3	49.2	73.8	100.0	84.2	
41	66	15	58	121	21	17	78	7	17	12	
99.2	37.3	99.9	0.5	11.5	N/A	75.0	53.2	76.4	100.0	92.1	
33	35	45	106	120	N/A	11	60	5	26	7	
99.9	33.2	100.0	7.2	14.0	11.7	71.5	44.5	100.0	100.0	68.8	
8	67	8	61	63	35	16	92	1	16	26	
97.9	37.7	99.9	26.6	13.7	10.6	53.9	26.6	53.7	99.9	62.5	
62	32	33	27	79	72	119	125	95	39	32	
97.7	34.7	99.8	14.3	14.0	10.7	57.7	42.8	55.7	99.7	47.6	
63	50	71	42	62	67	101	98	87	75	53	
95.7	43.4	99.9	0.0	30.4	N/A	63.4	40.9	66.0	100.0	69.1	
87	16	34	116	3	N/A	55	106	20	35	25	
97.6	45.5	99.7	37.3	19.9	25.1	55.8	27.2	70.3	99.8	54.7	
65	10	73	17	7	7	110	123	11	68	42	
98.8	41.5	100.0	N/A	13.8	10.6	56.3	28.9	47.3	100.0	76.4	
46	22	12	N/A	71	75	109	122	121	18	18	
97.9	32.3	99.9	4.6	14.0	10.8	68.0	43.7	58.4	100.0	94.3	
60	76	51	70	55	60	28	95	69	28	5	
100.0	30.7	99.9	0.0	12.3	10.6	63.5	59.1	52.8	99.9	46.5	
5	112	48	116	117	73	53	39	102	61	54	
97.9	33.9	99.8	10.8	14.0	10.9	59.7	50.8	60.2	99.8	37.1	
61	61	62	54	54	53	81	73	55	74	81	
85.9	36.6	99.4	28.7	12.0	6.3	65.3	57.1	63.2	99.4	49.6	
121	37	104	25	119	117	40	46	33	101	48	
98.2	31.9	100.0	3.0	14.1	10.6	73.0	57.3	70.1	100.0	80.2	
56	88	6	81	50	71	14	45	12	12	14	
99.4	35.8	99.8	19.7	13.5	10.2	57.0	40.5	68.2	99.8	36.0	
25	40	60	33	92	85	106	107	14	70	85	
98.5	30.1	99.9	0.1	13.8	6.6	68.0	53.4	50.0	100.0	83.1	
52	120	30	110	72	116	29	58	113	25	13	
99.3	43.9	99.9	50.8	13.9	11.1	67.8	62.7	58.2	99.9	55.7	
27	15	49	8	67	48	30	29	70	56	40	
100.0	34.1	99.9	10.9	13.9	11.7	66.2	58.4	52.8	99.9	50.1	
2	59	31	51	68	34	39	42	101	42	46	
96.8	34.5	99.9	12.9	13.9	11.3	58.3	45.5	61.1	99.9	39.6	
73	53	40	43	66	43	95	89	46	49	74	

(continued)

Table 10.1 (continued)

Indicators	Countries	ECC					Indus-	Net exports of goods as a percentage of GDP	Electric power consumption per unit of value added of industry	SO ₂ emissions per unit of value added of industry
			Agri-cultural carrying	Cereal yield per unit of arable land	Fertilizer consumption per unit of arable land	Annual freshwater withdrawals for agriculture per unit of arable land				
Tanzania	67.6	63.9	10.8	99.3	99.4	95.5	87.3	N/A	99.7	
	58	94	110	26	50	13	33	N/A	76	
Kenya	67.4	64.6	14.0	97.4	99.4	92.4	81.8	90.5	99.7	
	59	87	102	48	49	55	64	76	82	
Peru	67.3	71.3	39.8	91.5	93.1	93.9	84.0	95.6	99.3	
	60	40	42	80	104	32	52	29	108	
Ghana	67.3	66.2	16.3	99.0	99.8	88.8	70.3	86.7	99.8	
	61	70	93	28	33	90	100	97	69	
Czech Republic	67.2	76.5	48.8	90.0	100.0	85.9	52.6	92.9	99.9	
	62	21	31	85	4	106	123	55	38	
Georgia	67.2	61.8	10.1	96.5	96.1	85.9	90.4	71.6	99.8	
	63	104	111	52	86	107	21	118	60	
Saudi Arabia	67.1	79.6	59.2	96.5	89.8	89.1	61.3	95.5	99.9	
	64	12	17	53	111	88	114	30	49	
Cote d'Ivoire	67.1	65.6	15.2	98.7	99.7	84.2	71.0	94.8	76.4	
	65	76	96	35	38	114	96	38	130	
Turkey	67.1	67.6	26.6	92.2	97.8	94.7	89.0	92.8	99.8	
	66	59	70	77	73	23	27	57	75	
Cuba	67.0	66.0	17.7	98.9	97.6	91.5	87.4	88.6	99.3	
	67	72	91	32	76	68	32	89	112	
Nicaragua	66.9	66.9	19.3	98.2	99.1	91.8	80.2	88.9	99.6	
	68	63	87	39	59	62	70	87	97	
Pakistan	66.9	60.9	25.1	82.4	87.3	94.2	92.4	87.9	99.5	
	69	112	78	107	115	27	12	92	102	
Luxembourg	66.9	76.3	58.9	75.6	100.0	91.9	82.5	85.8	100.0	
	70	23	18	117	1	60	58	101	16	
Nigeria	66.9	64.6	11.7	99.8	99.8	91.2	67.5	98.9	100.0	
	71	89	106	8	36	72	105	6	29	
Philippines	66.8	63.8	32.3	88.6	81.0	91.5	86.5	93.6	99.7	
	72	96	58	91	122	69	36	47	78	
Australia	66.7	65.2	15.2	97.7	99.5	95.9	89.8	94.7	99.7	
	73	79	95	45	46	9	24	39	77	
Bangladesh	66.6	68.3	42.6	77.2	93.7	92.3	85.4	87.5	99.8	
	74	56	37	116	101	56	42	93	58	
Egypt, Arab Rep.	66.6	66.2	69.6	59.3	68.6	93.7	91.4	88.8	99.8	
	75	67	11	124	127	38	14	88	67	
Korea, Rep.	66.6	72.0	65.7	68.5	83.8	89.6	68.5	90.8	100.0	
	76	35	12	119	117	86	104	72	19	

Annual freshwater withdrawals for industry per value added of industry	Energy consumption					Greenhouse gas				
		Energy consumption per unit of land area	Ratio of clean energy consumption	Elasticity of energy consumption	Elasticity of electric power consumption		Growth rate of CO ₂ emissions	Growth rate of Methane emissions	CO ₂ emissions per unit of land area	CO ₂ emissions per unit of energy consumption
99.3	31.4	100.0	2.1	13.6	9.8	67.3	45.5	49.4	100.0	96.1
28	98	23	88	87	98	33	90	115	13	4
97.4	33.4	99.9	12.2	13.3	8.1	68.3	45.9	61.0	100.0	88.6
66	65	36	45	102	113	27	88	48	22	8
96.7	35.6	100.0	19.0	12.8	10.6	53.0	38.3	46.1	100.0	42.2
75	41	16	36	113	74	122	113	123	31	66
98.5	33.8	99.9	10.9	13.8	10.4	70.0	51.1	72.8	100.0	75.3
51	63	39	53	70	80	19	72	8	38	20
98.4	34.2	98.8	29.9	8.2	0.0	58.1	51.7	58.9	98.4	29.7
53	58	111	23	125	124	98	67	68	118	102
81.9	39.6	99.9	36.5	14.1	7.8	74.6	78.9	56.4	99.9	58.9
122	25	42	20	51	114	12	5	83	46	34
99.8	31.0	99.8	0.0	13.7	10.3	51.7	41.2	47.8	99.8	28.6
11	108	54	116	81	83	125	103	119	69	105
94.4	32.7	99.9	3.0	16.7	11.3	78.2	78.9	46.8	100.0	86.3
94	71	32	80	10	42	6	4	122	23	10
97.3	33.2	99.7	9.2	13.7	10.2	58.7	52.2	58.0	99.6	31.6
67	68	80	57	84	87	92	65	71	89	98
90.9	32.3	99.8	0.2	16.0	13.2	66.5	72.8	61.5	99.7	25.7
114	77	65	109	13	23	38	13	42	79	109
98.4	35.4	99.9	16.1	13.4	12.1	61.2	42.5	57.4	100.0	63.6
54	44	26	39	97	31	70	99	75	34	31
97.0	32.8	99.8	6.3	14.1	10.8	69.0	64.9	56.8	99.8	58.7
71	70	67	64	47	58	25	26	81	65	35
99.5	27.8	96.5	0.7	12.6	1.5	54.3	46.9	50.1	95.4	32.2
20	124	120	101	115	122	116	82	112	127	97
98.2	31.2	99.7	0.6	14.0	10.3	69.5	41.0	72.7	99.9	92.9
55	103	74	103	56	84	22	105	9	41	6
86.3	41.6	99.7	42.7	13.8	10.0	59.3	42.2	62.0	99.7	50.1
120	21	79	13	78	92	88	100	38	78	47
99.2	32.0	100.0	2.1	14.2	11.6	59.8	61.3	60.7	99.9	15.9
34	86	18	89	40	36	80	35	52	40	122
96.4	30.7	99.5	0.8	13.6	8.8	61.7	49.9	53.5	99.5	55.4
80	114	97	99	85	109	65	75	96	93	41
94.7	31.8	99.8	2.9	14.0	10.6	61.3	54.2	63.6	99.8	34.7
93	89	52	84	61	70	68	53	30	66	89
99.1	36.8	94.5	29.0	13.6	10.1	53.7	39.3	56.9	93.6	39.6
35	36	125	24	86	90	120	111	79	131	72

(continued)

Table 10.1 (continued)

Indicators	Countries	ECC					Indus-	Net exports of goods as a percentage of GDP	Electric power consumption per unit of value added of industry	SO ₂ emissions per unit of value added of industry
			Agri-cultural carrying	Cereal yield per unit of arable land	Fertilizer consumption per unit of arable land	Annual freshwater withdrawals for agriculture per unit of arable land				
Eritrea	66.5	60.3	1.8	99.7	98.8	95.0	90.9	90.2	99.2	
	77	117	129	14	65	20	16	83	114	
Iran, Islamic Rep.	66.5	65.0	22.4	94.4	92.5	94.1	84.2	93.0	99.8	
Zambia	66.4	69.0	24.5	97.8	99.4	85.9	70.3	81.6	95.9	
	79	52	79	43	48	108	99	110	128	
Sri Lanka	66.3	65.7	40.7	79.1	85.6	94.5	89.3	95.3	99.6	
	80	74	41	114	116	24	25	32	86	
Senegal	66.2	63.4	9.3	99.6	99.2	95.0	88.9	93.7	99.6	
	81	99	113	16	57	19	28	44	85	
Algeria	66.2	65.0	13.5	99.4	99.2	93.2	76.6	97.1	100.0	
	82	83	104	22	56	48	86	14	22	
Serbia	65.9	77.5	51.8	89.2	100.0	78.1	81.9	73.6	96.9	
	83	16	24	89	11	124	63	115	127	
Azerbaijan	65.8	64.8	18.6	98.9	92.4	91.0	73.6	97.3	99.9	
	84	84	89	31	106	73	93	13	44	
Russian Federation	65.7	66.2	16.6	98.7	99.8	89.9	82.4	85.4	99.6	
	85	68	92	34	28	84	59	104	88	
Uzbekistan	65.7	68.7	46.8	84.4	82.1	84.3	79.4	71.6	99.5	
	86	54	33	104	118	113	74	119	105	
China	65.6	69.9	58.1	60.5	95.1	92.3	83.3	90.4	99.7	
	87	45	19	122	92	57	54	79	81	
Jamaica	65.6	61.4	9.0	95.3	97.5	90.2	80.7	87.9	99.0	
	88	109	115	63	77	81	69	91	120	
Latvia	65.5	68.8	25.9	94.8	99.9	89.9	73.3	90.2	100.0	
	89	53	75	65	17	83	94	82	14	
Lithuania	65.5	69.2	25.9	96.3	99.9	82.2	58.5	92.0	99.9	
	90	51	74	54	15	118	119	64	47	
Cyprus	65.5	60.2	13.8	85.3	97.1	94.7	95.1	84.4	99.6	
	91	118	103	99	81	22	4	106	92	
Israel	65.5	65.6	29.8	84.7	94.3	93.0	82.4	90.3	99.6	
	92	75	64	101	97	49	60	81	87	
India	65.2	63.7	24.4	86.4	93.3	92.5	90.0	85.5	99.5	
	93	97	80	96	103	53	23	102	104	
Bolivia	65.2	68.6	22.1	99.5	99.5	91.2	75.9	93.6	99.9	
	94	55	83	18	42	71	87	46	45	
Panama	65.1	66.6	19.9	96.2	99.4	88.4	69.9	84.6	99.7	
	95	65	86	56	52	92	102	105	80	

Annual freshwater withdrawals for industry per value added of industry	Energy consumption					Greenhouse gas				
		Energy consumption per unit of land area	Ratio of clean energy consumption	Elasticity of energy consumption	Elasticity of electric power consumption		Growth rate of CO ₂ emissions	Growth rate of Methane emissions	CO ₂ emissions per unit of land area	CO ₂ emissions per unit of energy consumption
99.5	31.3	100.0	0.0	13.9	11.0	68.6	49.8	57.9	100.0	85.6
18	101	7	112	64	50	26	76	72	9	11
99.4	31.3	99.7	0.5	14.3	10.7	62.5	63.2	52.3	99.7	34.1
24	100	77	105	37	62	61	27	104	83	92
95.8	36.0	100.0	19.2	14.0	10.8	63.9	33.8	54.1	100.0	97.8
84	39	10	34	58	61	50	117	94	4	2
93.8	32.3	99.7	6.2	13.6	9.9	58.9	35.7	57.7	99.8	65.6
97	74	85	66	91	97	91	116	73	72	27
97.6	30.7	100.0	1.2	8.6	13.0	62.9	52.4	51.8	100.0	57.9
64	113	21	96	123	27	60	64	105	29	37
99.1	30.6	100.0	0.1	14.2	8.3	63.1	62.2	57.0	100.0	34.2
37	116	20	111	39	112	57	32	77	37	90
60.0	34.7	99.6	10.9	14.7	13.5	61.6	62.5	64.1	99.4	19.5
130	49	88	51	24	19	66	31	26	99	115
93.3	32.0	99.7	2.8	14.1	11.5	63.1	61.3	48.9	99.7	44.5
99	83	82	85	48	39	56	34	118	82	60
92.0	34.9	99.9	15.4	13.7	10.7	59.4	51.5	54.7	99.9	39.6
108	47	41	40	83	64	86	70	88	51	73
86.8	32.0	99.8	2.8	14.3	11.3	67.0	68.5	59.5	99.7	38.6
119	82	64	86	34	44	35	20	63	76	77
95.7	32.2	99.5	6.2	13.7	9.5	52.4	46.8	51.4	99.1	17.9
85	79	101	65	82	104	123	83	106	111	118
93.3	33.8	99.4	0.7	14.8	20.3	66.6	69.6	65.5	99.2	29.4
100	62	103	100	23	11	37	17	22	109	103
96.0	35.1	99.9	12.2	14.8	13.5	54.6	30.9	59.6	99.9	51.8
83	46	50	46	22	20	114	119	60	60	45
78.2	40.4	99.8	59.6	0.0	2.1	60.2	44.0	64.0	99.8	49.0
124	24	68	6	126	121	77	94	27	73	51
99.7	32.2	99.4	4.2	12.0	13.1	63.0	68.5	59.5	99.1	19.3
12	80	102	71	118	25	58	21	65	112	116
99.7	32.5	97.7	8.3	13.5	10.4	57.1	44.2	81.7	96.5	18.9
13	72	118	59	93	79	105	93	3	125	117
94.9	32.1	99.5	4.0	14.0	10.8	59.4	51.7	57.6	99.4	36.9
92	81	96	74	57	59	87	68	74	102	82
95.5	31.8	100.0	5.4	12.5	9.1	54.3	36.6	49.1	100.0	49.2
89	92	5	68	116	107	115	115	117	20	50
99.5	35.4	99.9	18.5	13.1	10.1	57.7	42.2	63.9	99.9	40.4
19	43	46	37	106	88	102	101	28	54	69

(continued)

Table 10.1 (continued)

Indicators	Countries	ECC					Indus-	Net exports of goods as a percentage of GDP	Electric power consumption per unit of value added of industry	SO ₂ emissions per unit of value added of industry
			Agri-cultural carrying	Cereal yield per unit of arable land	Fertilizer consumption per unit of arable land	Annual freshwater withdrawals for agriculture per unit of arable land				
Lesotho	65.0	46.3	6.1	N/A	100.0	83.7	70.3	N/A	N/A	
	96	129	122	N/A	14	115	98	N/A	N/A	
Namibia	64.9	59.8	0.0	99.9	99.6	90.7	70.4	94.2	98.6	
	97	119	132	7	41	78	97	42	123	
Honduras	64.9	61.4	8.1	95.0	99.0	87.8	69.9	90.0	99.7	
	98	108	116	64	63	95	103	85	83	
Yemen, Rep.	64.9	61.7	8.1	99.0	95.7	95.2	86.1	96.0	99.3	
	99	106	117	29	88	17	39	25	110	
Poland	64.9	69.3	32.1	88.3	99.8	90.5	76.8	91.7	99.7	
	100	50	60	92	26	79	85	66	79	
Bulgaria	64.9	70.7	37.2	86.5	99.5	76.8	66.7	78.2	97.7	
	101	42	49	95	44	128	108	113	126	
Bosnia and Herzegovina	64.7	64.5	39.3	98.0	N/A	88.2	79.5	76.4	98.3	
	102	91	44	40	N/A	93	73	114	125	
Kyrgyz Republic	64.6	66.2	25.2	98.3	88.7	77.1	78.8	54.7	99.4	
	103	69	77	38	113	127	78	124	107	
Macedonia, FYR	64.5	71.8	33.4	95.4	99.5	77.4	72.2	73.4	99.9	
	104	38	56	62	43	125	95	116	52	
Tunisia	64.3	64.6	15.0	96.6	98.8	91.7	75.6	92.7	99.6	
	105	88	98	51	64	64	88	58	94	
Mozambique	64.2	62.7	7.1	99.8	99.8	85.6	82.2	61.7	99.5	
	106	100	118	11	27	109	61	123	101	
Costa Rica	64.1	47.0	37.2	16.4	90.8	96.0	84.2	99.9	100.0	
	107	128	48	127	108	8	49	3	6	
Syrian Arab Republic	63.8	60.8	9.7	94.7	95.1	90.8	81.0	86.0	99.6	
	108	113	112	66	91	77	67	100	96	
Thailand	63.7	67.0	29.0	89.9	95.0	87.9	60.8	93.1	99.9	
	109	61	66	87	93	94	115	53	40	
Ukraine	63.6	69.6	26.6	97.6	99.1	77.3	73.8	70.2	99.1	
	110	49	71	47	61	126	92	121	118	
Botswana	63.6	60.3	1.9	99.0	99.5	93.7	78.5	97.1	99.6	
	111	116	128	30	45	37	80	16	89	
Turkmenistan	63.4	64.6	32.9	92.5	78.8	86.5	64.8	90.6	99.6	
	112	90	57	75	125	104	111	74	100	
Ecuador	63.4	62.1	30.9	84.7	81.2	86.9	78.5	81.8	91.3	
	113	102	62	100	120	103	79	109	129	
Congo, Rep.	63.3	61.8	4.7	99.9	100.0	87.1	48.7	100.0	99.8	
	114	105	124	5	3	101	128	1	62	
Lebanon	63.2	67.0	26.7	98.4	89.4	82.5	93.1	46.0	98.6	
	115	62	69	36	112	116	10	125	124	

Annual freshwater withdrawals for industry per value added of industry	Energy consumption						Greenhouse gas					
		Energy consumption per unit of land area	Ratio of clean energy consumption	Elasticity of energy consumption	Elasticity of electric power consumption	Growth rate of CO ₂ emissions		Growth rate of Methane emissions	CO ₂ emissions per unit of land area	CO ₂ emissions per unit of energy consumption		
97.1	N/A	N/A	0.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
69	N/A	N/A	116	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
99.6	34.6	100.0	12.2	14.1	12.1	64.2	58.2	59.8	100.0	44.8		
15	51	1	44	49	32	46	43	57	7	59		
91.8	33.7	99.9	9.3	13.8	11.6	67.0	61.7	52.9	99.9	58.5		
110	64	38	56	74	37	36	33	100	45	36		
99.4	31.0	100.0	0.0	14.3	9.7	58.1	60.1	53.0	100.0	17.4		
26	107	14	116	35	99	97	37	99	36	120		
93.9	30.7	99.3	0.6	13.2	9.6	54.0	46.1	61.0	98.9	17.8		
96	115	105	104	104	100	118	85	47	114	119		
64.6	43.0	99.7	42.5	15.4	14.2	60.2	51.6	64.3	99.6	33.8		
127	18	86	15	18	17	78	69	25	92	93		
98.5	38.2	99.7	15.4	16.7	21.0	56.5	54.2	59.6	99.6	14.9		
50	31	76	41	12	9	108	54	62	91	124		
75.4	44.1	100.0	48.3	15.7	12.4	64.1	67.8	49.3	100.0	35.6		
125	13	17	9	15	30	48	22	116	32	87		
64.2	35.2	99.8	7.3	15.7	18.0	63.4	66.6	61.9	99.6	22.6		
128	45	70	60	14	14	54	25	39	86	112		
99.1	27.7	99.9	0.3	9.4	1.1	59.1	53.4	49.9	99.8	38.8		
36	125	47	108	122	123	89	59	114	63	75		
99.0	37.6	100.0	25.5	15.1	10.1	61.0	33.6	40.1	100.0	97.6		
39	33	13	28	20	91	73	118	125	6	3		
100.0	41.9	99.8	42.7	14.1	11.1	64.2	51.1	54.1	99.9	63.6		
4	20	61	13	52	47	47	71	92	58	30		
96.6	30.1	99.8	1.2	13.9	5.7	61.2	58.8	60.8	99.7	27.9		
76	119	72	95	69	119	69	40	51	84	106		
98.0	31.0	99.5	1.0	13.6	10.0	55.0	40.5	51.0	99.5	43.6		
59	106	95	98	90	93	113	108	109	97	62		
66.0	38.9	99.5	33.5	13.0	9.6	58.7	43.7	60.9	99.5	45.7		
126	29	94	21	109	103	93	96	50	96	56		
99.5	31.1	100.0	0.0	13.6	10.8	55.8	44.9	43.3	100.0	46.0		
21	105	3	114	88	57	111	91	124	15	55		
91.2	30.9	99.9	0.0	12.9	10.9	59.6	38.1	88.5	99.9	33.3		
112	110	43	115	111	55	83	114	2	53	94		
96.0	34.4	99.9	11.6	13.6	12.4	58.9	53.8	54.1	99.9	32.2		
82	55	44	47	89	29	90	56	91	57	96		
99.9	32.3	100.0	3.5	14.0	11.9	60.7	39.2	53.3	100.0	72.0		
9	75	4	77	60	33	75	112	98	8	21		
92.3	30.0	98.7	1.4	14.5	5.6	61.9	66.8	56.5	98.0	21.3		
106	121	113	94	30	120	64	24	82	120	114		

(continued)

Table 10.1 (continued)

Indicators	Countries	ECC					Indus-	Net exports of goods as a percentage of GDP	Electric power consumption per unit of value added of industry	SO ₂ emissions per unit of value added of industry
			Agri-cultural carrying	Cereal yield per unit of arable land	Fertilizer consumption per unit of arable land	Annual freshwater withdrawals for agriculture per unit of arable land				
Libya	63.0	59.4	3.3	96.7	96.9	90.8	66.7	97.4	100.0	
	116	120	126	50	82	75	107	11	23	
Tajikistan	62.5	63.8	26.5	96.2	81.2	59.8	82.2	0.0	99.1	
	117	95	72	57	121	133	62	126	117	
Zimbabwe	62.3	60.7	4.3	97.7	98.8	82.3	74.9	65.7	99.2	
	118	114	125	44	66	117	89	122	115	
Angola	61.7	61.2	3.1	99.9	99.9	88.7	55.3	99.8	100.0	
	119	110	127	4	19	91	121	4	7	
Belarus	61.3	64.2	27.7	77.3	99.8	81.5	52.4	86.9	99.8	
	120	93	67	115	35	123	124	96	61	
Vietnam	60.8	66.4	54.1	67.5	81.7	82.1	50.3	85.4	99.8	
	121	66	23	120	119	120	125	103	72	
Iraq	59.7	59.1	14.8	97.0	80.1	87.6	66.4	97.1	99.8	
	122	122	99	49	123	98	109	15	66	
Malaysia	59.4	55.6	38.7	37.7	96.2	84.6	50.0	92.9	99.9	
	123	124	46	126	85	112	126	56	34	
Kazakhstan	59.2	61.6	4.9	99.8	99.1	87.3	70.1	90.9	98.7	
	124	107	123	9	60	99	101	71	122	
Kuwait	58.7	51.9	34.3	95.6	31.7	87.8	54.9	96.3	99.8	
	125	126	54	61	129	96	122	22	63	
Jordan	58.1	35.6	17.9	0.1	94.7	92.0	82.5	86.5	99.6	
	126	131	90	130	96	58	57	98	91	
Moldova	57.5	70.1	26.2	99.2	99.4	62.7	80.0	71.1	99.6	
	127	44	73	27	51	131	71	120	98	
Mongolia	57.3	49.0	11.3	99.4	N/A	82.1	59.8	87.5	99.1	
	128	127	109	24	N/A	119	116	94	116	
Niger	57.1	60.5	1.3	100.0	99.8	62.3	90.4	N/A	0.0	
	129	115	130	1	34	132	22	N/A	131	
Estonia	57.0	67.7	23.4	94.4	100.0	74.2	48.1	86.4	99.3	
	130	58	81	69	7	129	130	99	113	
Qatar	51.9	41.4	49.9	0.0	71.4	89.2	58.2	98.5	100.0	
	131	130	28	131	126	87	120	7	15	
United Arab Emirates	47.9	15.3	25.9	16.4	0.0	85.3	44.9	96.3	99.9	
	132	132	76	128	130	110	131	23	30	
Singapore	43.1	N/A	N/A	N/A	N/A	73.8	0.0	95.4	99.9	
	133	N/A	N/A	N/A	N/A	130	133	31	39	
Highest score	82.4	91.2	100.0	100.0	100.0	98.3	100.0	100.0	100.0	
Lowest score	43.1	15.3	0.0	0.0	0.0	59.8	0.0	0.0	0.0	
Average score	67.0	67.3	32.4	87.8	94.2	89.6	77.3	89.0	98.6	
Standard deviation	5.3	9.8	22.2	19.5	12.6	6.6	14.5	12.0	8.9	

Annual freshwater withdrawals for industry per value added of industry	Energy consumption					Greenhouse gas				
		Energy consumption per unit of land area	Ratio of clean energy consumption	Elasticity of energy consumption	Elasticity of electric power consumption		Growth rate of CO ₂ emissions	Growth rate of Methane emissions	CO ₂ emissions per unit of land area	CO ₂ emissions per unit of energy consumption
99.2	31.6	100.0	0.0	15.7	10.9	58.2	52.5	59.2	100.0	26.8
30	94	9	116	16	54	96	63	67	30	108
57.9	56.3	100.0	100.0	14.3	11.1	70.7	67.8	47.4	100.0	70.5
131	3	19	1	36	46	18	23	120	24	22
89.5	33.0	100.0	6.5	14.1	11.4	64.3	41.1	61.7	100.0	77.4
116	69	25	63	53	40	44	104	40	27	17
99.7	32.0	100.0	3.9	13.7	10.4	51.8	19.6	50.4	100.0	69.6
14	84	11	76	80	81	124	130	110	21	24
87.1	30.7	99.7	0.0	13.8	9.4	57.3	49.6	51.0	99.6	36.6
118	111	81	113	76	105	104	77	108	85	84
92.9	31.7	99.6	6.9	12.9	7.4	49.7	26.6	54.6	99.5	41.1
104	93	89	62	112	115	126	126	89	94	67
87.2	31.2	99.8	1.5	13.3	10.0	47.2	28.9	53.4	99.7	24.8
117	104	59	92	99	94	127	121	97	77	110
95.6	31.4	99.5	1.5	13.9	10.7	55.3	39.4	67.3	99.4	31.1
88	97	93	93	65	68	112	110	16	104	100
89.7	31.4	99.9	1.5	13.3	10.7	41.2	20.2	50.4	99.9	15.3
115	99	29	91	101	63	129	129	111	48	123
100.0	30.0	96.0	0.0	13.4	10.7	54.0	41.5	63.3	94.5	29.1
3	122	121	116	98	66	117	102	32	128	104
99.4	31.8	99.8	2.9	14.5	9.9	67.4	68.8	69.7	99.8	30.0
23	90	56	83	28	96	32	19	13	71	101
0.0	30.6	99.8	0.3	13.1	9.1	57.6	45.9	59.6	99.8	36.8
132	117	55	107	105	106	103	87	61	67	83
N/A	31.2	100.0	0.0	14.1	10.7	58.4	57.9	76.4	100.0	0.0
N/A	102	2	116	45	69	94	44	6	14	126
96.5	N/A	N/A	0.0	N/A	N/A	44.1	16.2	N/A	100.0	N/A
79	N/A	N/A	116	N/A	N/A	128	131	N/A	2	N/A
63.1	39.1	99.7	0.7	26.9	29.0	32.9	0.0	56.3	99.5	8.8
129	28	78	102	4	5	132	132	85	95	125
100.0	30.3	95.9	0.0	14.3	11.0	33.3	25.7	0.0	93.8	21.4
1	118	122	116	33	52	131	128	126	130	113
100.0	30.9	98.4	0.0	13.8	11.5	58.0	53.8	51.2	98.0	33.1
6	109	115	116	73	38	99	57	107	121	95
99.8	5.9	0.0	0.0	13.0	10.4	34.2	30.4	61.2	0.0	49.2
10	126	126	116	108	77	130	120	45	132	49
100.0	75.7	100.0	100.0	100.0	100.0	86.2	100.0	100.0	100.0	100.0
0.0	0.0	0.0	0.0	0.0	0.0	32.9	0.0	0.0	0.0	0.0
93.8	35.4	98.7	14.2	15.1	13.3	62.2	51.8	59.1	98.6	47.8
11.6	8.2	8.9	19.1	8.8	12.3	8.7	15.4	10.0	8.7	22.0

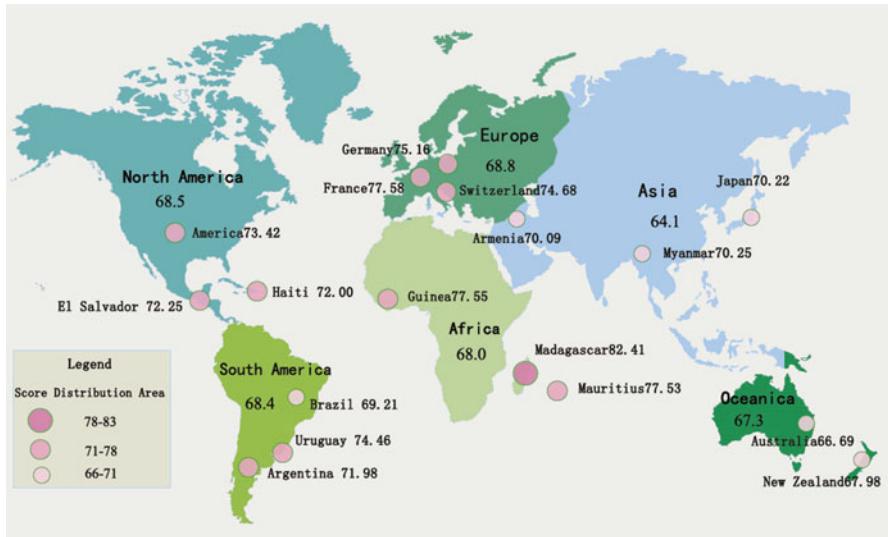


Fig. 10.1 ECC scores of six continents & top three countries of each continent in 2012

To compare and analyze the ECC levels of all the countries in a more visual way, the ECC scores are displayed in Fig. 10.2. According to Fig. 10.2, the ECC scores show little differences among the adjacent ranking countries. Among the developed countries, France scores the highest, 77.6 points; among the developing countries, Madagascar scores the highest, 82.4 points. They have big difference.

10.2 Factor Scores and Contribution Rates of ECC

Table 10.1 lists the evaluation results of the subordinate indicators of ECC and displays the scores and rankings of 4 pillars and 15 individual indicators of ECC in 2012 so as to analyze the influences of the pillars and individual indicators on ECC of the countries.

On pillars, agricultural carrying enjoys the highest standard deviation, hitting 9.8, indicating that this indicator has the largest differences among the countries and is the most primary factor causing ECC differences among the countries. The indicator of industrial carrying, energy consumption and green house gas have relatively low standard deviation, in particular, the standard deviation of industrial carrying is the lowest, 6.6, indicating that it has the least influence on ECC differences among the countries. Overall, the countries have little differences on the overall levels of ECC.

On individual indicators, cereal yield per unit of arable land enjoys the highest standard deviation, hitting 22.2, indicating that this indicator has the largest

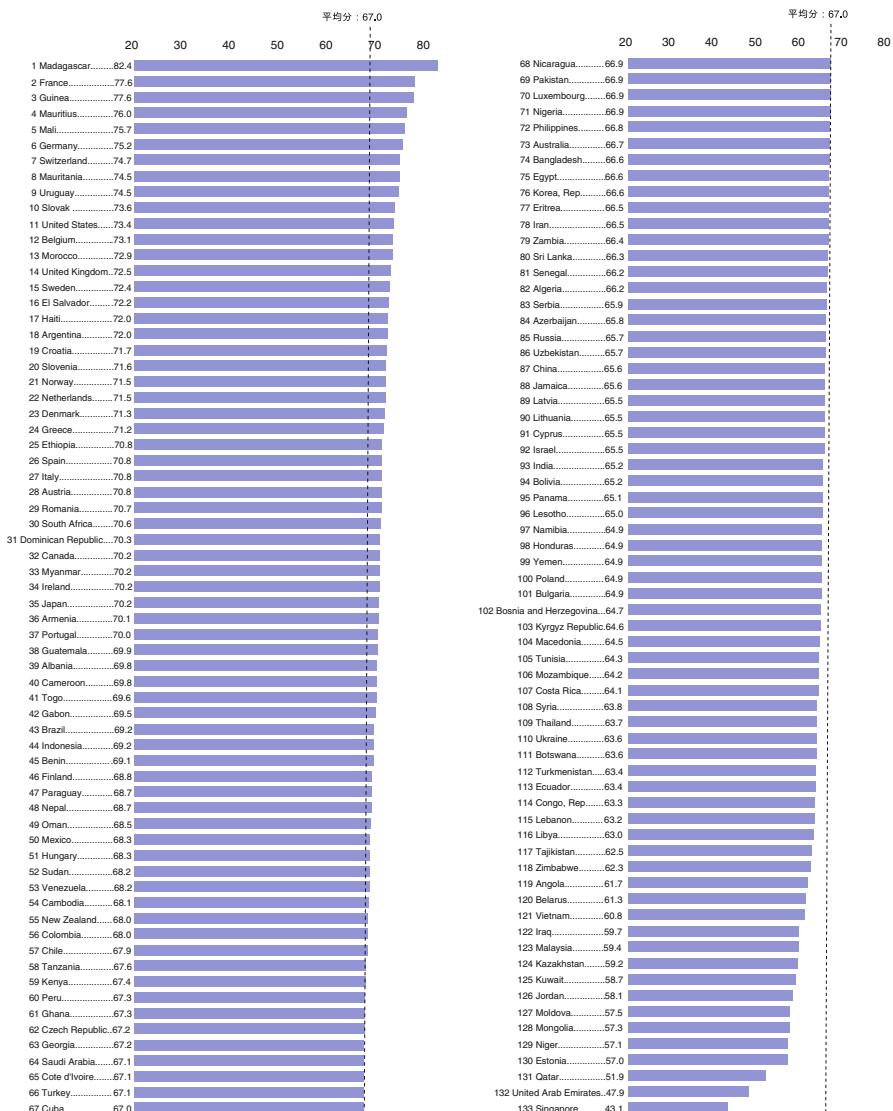


Fig. 10.2 Rankings and scores of ECC 2012

differences among the countries and is the most primary factor causing ECC differences among the countries. The standard deviations of CO₂ emissions per unit of energy consumption, fertilizer consumption per unit of arable land and ratio of clean energy consumption are also very high, about 20. The other individual indicators have lower standard deviation, indicating they have less influence on ECC differences among the countries.

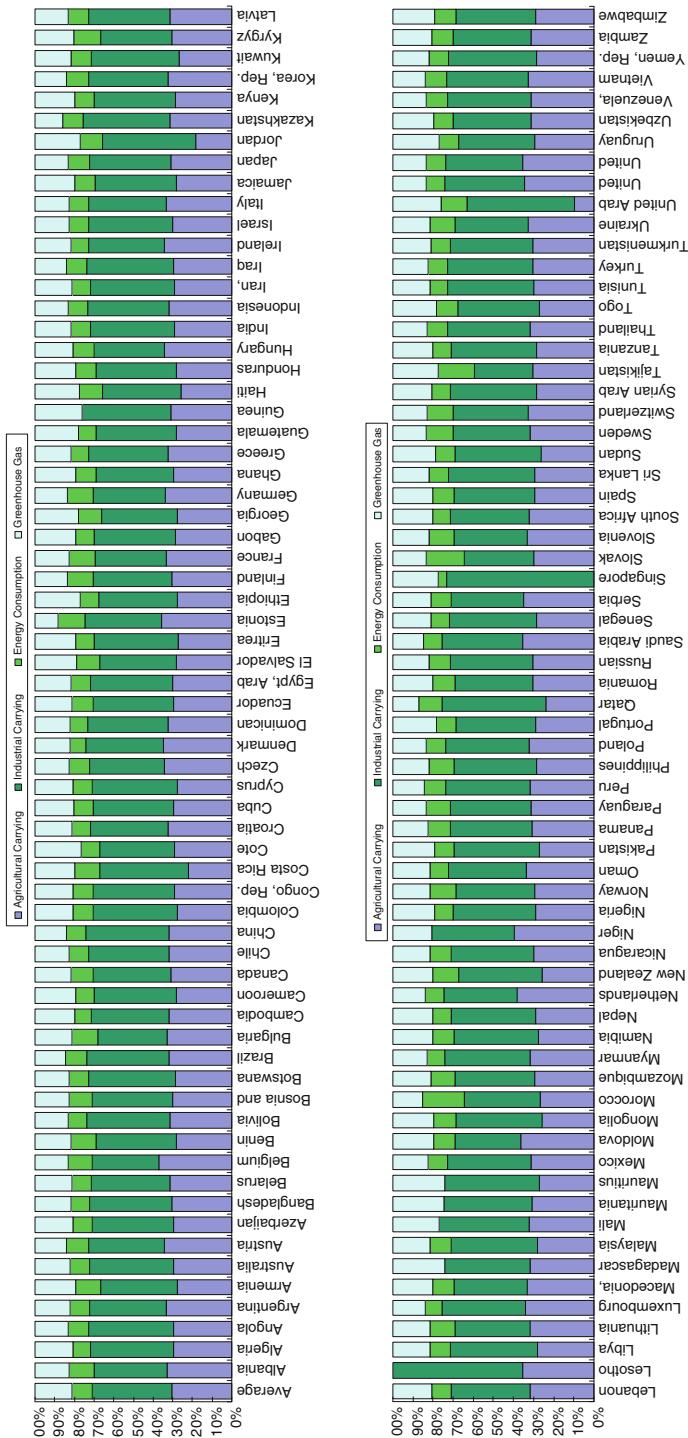


Fig. 10.3 Contribution rates of pillars of ECC 2012

To analyze the contribution of the pillars to ECC, firstly multiply the scores of the pillars by respective weights, then convert them into the scores at sub-index and finally divide them by the total score of sub-index to get the contribution rates of the pillars. Thus, we could find the contribution of each pillar to the sub-index more visually, as shown in Fig. 10.3.

According to Fig. 10.3, industrial carrying contributes the most to ECC with the average contribution rate of 40.1 %; the contribution rate of agricultural carrying the next, 30.1 %; energy consumption the least, 10.6 %. Therefore, to enhance ECC, the countries shall focus specially on industrial production carrying and agricultural carrying, while not ignoring green house gas and energy consumption.

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