

Overshoot Index

The Overshoot Index assesses the extent to which a country can support itself from its own renewable resources, by measuring per capita consumption against per capita biocapacity. The ecological footprint measures the area of biologically productive land and water required to produce the renewable resources/ecological services for, and absorb the waste of, a given population at a given average level of resource consumption. Biocapacity is the biologically productive capacity of an area - cropland, grazing land, forest, fresh water etc. It does not include non-renewable resources like fossil fuels and other minerals, so tends to under-estimate dependency. Ecological footprint and biocapacity are measured in global hectares (hectares with world average biological productivity) per person. Thus increased productivity would reduce dependency; while increased population or consumption per head would increase it.

The percentage of an area's footprint supported from its renewable resources is its self-sufficient percentage; the remaining percentage is its dependent percentage. Similarly, the percentage of an area's population supported from its renewable resources is its sustainable population at current consumption levels with current technology; the remaining percentage is its overshoot population. A dependency of greater than zero means that a country, region or the world is relying on other countries or non-renewable, unsustainable resources for its current consumption. Countries in overshoot increase their dependency, and the others approach overshoot, as either their population or their per capita consumption grows; and faster if both grow.

All source data is from The Ecological Footprint Atlas 2010, based on 2007 figures, produced by the Global Footprint Network (GFN). Countries with populations of under one million have been omitted. GFN's data are largely from UN sources; their methodology is still admittedly imprecise, but is subject to continuous refinement. For full details of the calculations, go to www.footprintnetwork.org This extrapolation from GFN data was produced by Population Matters. www.populationmatters.org

dependency ranking	country/ region name	eco footprint global ha pc	biocapacity global ha pc	self sufficiency %	dependency %	actual pop'h (m)	sustainable pop'h (m)	overshoot pop'h (m)	alphabetical listing	
Already in overshoot										
1	Singapore	5.3	0.0	0.3	99.7	4.5	0.0	4.5	Afghanistan	99
2	Kuwait	6.3	0.4	6.3	93.7	2.9	0.2	2.7	AFRICA	112
3	Israel	4.8	0.3	6.6	93.4	6.9	0.5	6.5	Albania	41
4	Korea, Republic of	4.9	0.3	6.9	93.1	48.0	3.3	44.7	Algeria	31
5	United Arab Emirates	10.7	0.8	7.9	92.1	6.2	0.5	5.8	Angola	153
6	Jordan	2.1	0.2	11.8	88.2	5.9	0.7	5.2	Argentina	152
7	Japan	4.7	0.6	12.7	87.3	127.4	16.1	111.3	Armenia	35
8	Mauritius	4.3	0.6	13.1	86.9	1.3	0.2	1.1	ASIA	42
9	Lebanon	2.9	0.4	13.9	86.1	4.2	0.6	3.6	Australia	145
10	Libyan Arab Jamahiriya	3.1	0.4	14.6	85.4	6.2	0.9	5.3	Austria	80
11	Nepal	3.6	0.5	15.3	84.7	28.3	4.3	23.9	Azerbaijan	36
12	Saudi Arabia	5.1	0.8	16.3	83.7	24.7	4.0	20.6	Bangladesh	75
13	Netherlands	6.2	1.0	16.6	83.4	16.5	2.7	13.7	Belarus	98
14	Belgium	8.0	1.3	16.8	83.2	10.5	1.8	8.8	Belgium	14
15	Jamaica	1.9	0.4	19.9	80.1	2.7	0.5	2.2	Benin	83
16	Occupied Palestinian Territory	0.7	0.2	21.3	78.7	4.0	0.9	3.2	Bolivia	160
17	Iraq	1.3	0.3	22.4	77.6	29.5	6.6	22.9	Bosnia and Herzegovina	70
18	Italy	5.0	1.1	22.9	77.1	59.3	13.6	45.7	Botswana	127
19	Qatar	10.5	2.5	23.9	76.1	1.1	0.3	0.9	Brazil	154
20	Switzerland	5.0	1.2	24.7	75.3	7.5	1.9	5.7	Bulgaria	59
21	Macedonia TFYR	5.7	1.4	25.3	74.7	2.0	0.5	1.5	Burkina Faso	111
22	UNITED KINGDOM	4.9	1.3	27.4	72.6	61.1	16.7	44.4	Burundi	66
23	Portugal	4.5	1.3	28.1	71.9	10.6	3.0	7.7	Cambodia	103
24	Spain	5.4	1.6	29.8	70.2	44.1	13.1	30.9	Cameroon	133

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25	Greece	5.4	1.6	30.1	69.9	11.1	3.3	7.8	Canada	143
26	Iran, Islamic Republic of	2.7	0.8	30.3	69.7	72.4	22.0	50.5	Central African Republic	159
27	Gambia	3.4	1.1	32.0	68.0	1.6	0.5	1.1	Chad	136
28	El Salvador	2.0	0.7	33.1	66.9	6.1	2.0	4.1	Chile	120
29	Dominican Republic	1.5	0.5	34.0	66.0	9.8	3.3	6.5	China	39
30	Sri Lanka	1.2	0.4	36.9	63.1	19.9	7.3	12.6	Colombia	144
31	Algeria	1.6	0.6	37.1	62.9	33.9	12.6	21.3	Congo	161
32	Egypt	1.7	0.6	37.2	62.8	80.1	29.8	50.3	Congo, Dem. Republic of	158
33	Germany	5.1	1.9	37.9	62.1	82.3	31.2	51.2	Costa Rica	91
34	Cuba	1.9	0.7	40.0	60.0	11.2	4.5	6.7	Côte d'Ivoire	129
35	Armenia	1.8	0.7	40.8	59.2	3.1	1.3	1.8	Croatia	88
36	Azerbaijan	1.9	0.8	40.9	59.1	8.6	3.5	5.1	Cuba	34
37	Oman	5.0	2.1	42.9	57.1	2.7	1.2	1.6	Czech Republic	44
38	Korea, Dem.People's Rep. of	1.3	0.6	43.9	56.1	23.7	10.4	13.3	Denmark	71
39	China	2.2	1.0	44.2	55.8	1,336.6	590.4	746.1	Dominican Republic	29
40	Haiti	0.7	0.3	45.6	54.4	9.7	4.4	5.3	Ecuador	121
41	Albania	1.9	0.9	45.7	54.3	3.1	1.4	1.7	Egypt	32
42	ASIA	1.8	0.8	45.8	54.2	4,031.2	1846.9	2184.3	El Salvador	28
43	Syrian Arab Republic	1.5	0.7	46.0	54.0	20.5	9.4	11.1	Eritrea	134
44	Czech Republic	5.7	2.7	46.5	53.5	10.3	4.8	5.5	Estonia	117
45	Philippines	1.3	0.6	47.8	52.2	88.7	42.4	46.3	Ethiopia	73
46	Moldova	1.4	0.7	47.8	52.2	3.7	1.8	1.9	EUROPE	78
47	Poland	4.3	2.1	48.1	51.9	38.1	18.3	19.8	Finland	139
48	United States of America	8.0	3.9	48.4	51.6	308.7	149.3	159.4	France	72
49	Thailand	2.4	1.2	48.6	51.4	67.0	32.6	34.4	Gabon	162
50	Serbia	2.4	1.2	48.7	51.3	9.8	4.8	5.0	Gambia	27
51	Turkey	2.7	1.3	48.9	51.1	73.0	35.7	37.3	Georgia	87
52	Mexico	3.0	1.5	49.0	51.0	107.5	52.7	54.8	Germany	33
53	Slovenia	5.3	2.6	49.2	50.8	2.0	1.0	1.0	Ghana	90
54	South Africa	2.3	1.1	49.2	50.8	49.2	24.2	25.0	Greece	25
55	Morocco	1.2	0.6	50.1	49.9	31.2	15.6	15.6	Guatemala	82
56	HIGH INCOME COUNTRIES	6.1	3.1	50.2	49.8	1,031.4	518.0	513.4	Guinea	130
57	Trinidad and Tobago	3.1	1.6	50.7	49.3	1.3	0.7	0.7	Guinea-Bissau	155
58	Tunisia	1.9	1.0	51.8	48.2	10.1	5.2	4.9	Haiti	40
59	Bulgaria	4.1	2.1	52.3	47.7	7.6	4.0	3.6	HIGH INCOME COUNTRIES	56
60	Uzbekistan	1.7	0.9	52.6	47.4	26.9	14.2	12.7	Honduras	106
61	Kenya	1.1	0.6	53.5	46.5	37.8	20.2	17.6	Hungary	93
62	Malaysia	4.9	2.6	53.6	46.4	26.6	14.2	12.3	India	68
63	Ireland	6.3	3.5	55.2	44.8	4.4	2.4	1.9	Indonesia	116
64	Rwanda	1.0	0.6	55.3	44.7	9.5	5.2	4.2	Iran, Islamic Republic of	26
65	Uganda	1.5	0.8	55.3	44.7	30.6	17.0	13.7	Iraq	17
66	Burundi	0.9	0.5	55.7	44.3	7.8	4.4	3.5	Ireland	63
67	Pakistan	0.8	0.4	55.8	44.2	173.2	96.7	76.5	Israel	3
68	India	0.9	0.5	55.9	44.1	1,164.7	650.9	513.7	Italy	18
69	Tajikistan	1.0	0.6	56.1	43.9	6.7	3.8	3.0	Jamaica	15
70	Bosnia and Herzegovina	2.7	1.6	58.3	41.7	3.8	2.2	1.6	Japan	7
71	Denmark	8.3	4.9	58.7	41.3	5.4	3.2	2.2	Jordan	6
72	France	5.0	3.0	59.9	40.1	61.7	37.0	24.7	Kazakhstan	101
73	Ethiopia	1.1	0.7	60.0	40.0	78.6	47.2	31.4	Kenya	61
74	Zimbabwe	1.2	0.8	60.2	39.8	12.4	7.5	5.0	Korea, Dem.People's Rep. of	38
75	Bangladesh	0.6	0.4	60.4	39.6	157.8	95.3	62.4	Korea, Republic of	4

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76	Togo	1.0	0.6	61.3	38.7	6.3	3.9	2.4	Kuwait	2
77	Viet Nam	1.4	0.9	61.4	38.6	86.1	52.9	33.2	Kyrgyzstan	113
78	EUROPE	4.7	2.9	61.8	38.2	730.9	451.6	279.3	L. AMERICA/CARRIBBEAN	142
79	UNITED STATES/ CANADA	7.9	4.9	62.4	37.6	341.6	213.3	128.3	Lao People's Dem. Republic	122
80	Austria	5.3	3.3	62.5	37.5	8.3	5.2	3.1	Latvia	123
81	Ukraine	2.9	1.8	62.8	37.2	46.3	29.1	17.2	Lebanon	9
82	Guatemala	1.8	1.1	63.4	36.6	13.4	8.5	4.9	Lesotho	94
83	Benin	1.2	0.8	63.4	36.6	8.4	5.3	3.1	Liberia	138
84	Yemen	0.9	0.6	65.5	34.5	22.3	14.6	7.7	Libyan Arab Jamahiriya	10
85	Slovakia	4.1	2.7	66.0	34.0	5.4	3.6	1.8	Lithuania	105
86	WORLD	2.7	1.8	66.1	33.9	6,671.6	4410.2	2261.3	LOW INCOME COUNTRIES	104
87	Georgia	1.8	1.2	66.2	33.8	4.4	2.9	1.5	Macedonia TFYR	21
88	Croatia	3.7	2.5	66.8	33.2	4.4	3.0	1.5	Madagascar	131
89	Swaziland	1.5	1.0	67.0	33.0	1.2	0.8	0.4	Malawi	107
90	Ghana	1.8	1.2	67.9	32.1	22.9	15.5	7.3	Malaysia	62
91	Costa Rica	2.7	1.9	70.7	29.3	4.5	3.2	1.3	Mali	124
92	Romania	2.7	2.0	72.0	28.0	21.5	15.4	6.0	Mauritania	141
93	Hungary	3.0	2.2	74.6	25.4	10.0	7.5	2.5	Mauritius	8
94	Lesotho	1.1	0.8	75.8	24.2	2.0	1.5	0.5	Mexico	52
95	Nigeria	1.4	1.1	77.7	22.3	147.7	114.9	32.9	MIDDLE INCOME	100
96	Turkmenistan	3.9	3.2	81.8	18.2	5.0	4.1	0.9	Moldova	46
97	Tanzania, United Republic of	1.2	1.0	86.2	13.8	41.3	35.6	5.7	Mongolia	150
98	Belarus	3.8	3.3	86.4	13.6	9.7	8.4	1.3	Morocco	55
99	Afghanistan	0.6	0.5	87.2	12.8	26.3	22.9	3.4	Mozambique	147
100	MIDDLE INCOME	2.0	1.7	87.6	12.4	4,323.3	3787.2	536.1	Myanmar	119
101	Kazakhstan	4.5	4.0	88.2	11.8	15.4	13.6	1.8	Namibia	156
102	Niger	2.3	2.1	88.9	11.1	14.1	12.6	1.6	Nepal	11
103	Cambodia	1.0	0.9	90.8	9.2	14.3	13.0	1.3	Netherlands	13
104	LOW INCOME COUNTRIES	1.2	1.1	90.9	9.1	1,303.3	1184.7	118.6	New Zealand	146
105	Lithuania	4.7	4.4	93.4	6.6	3.4	3.1	0.2	Nicaragua	135
106	Honduras	1.9	1.8	96.3	3.7	7.2	6.9	0.3	Niger	102
107	Malawi	0.7	0.7	96.4	3.6	14.4	13.9	0.5	Nigeria	95
108	Venezuela, Bol. Republic of	2.9	2.8	97.2	2.8	27.7	26.9	0.8	Norway	110
109	Somalia	1.4	1.4	98.2	1.8	8.7	8.6	0.2	Occupied Palestinian Territory	16
110	Norway	5.6	5.5	98.6	1.4	4.7	4.7	0.1	OCEANIA	140
111	Burkina Faso	1.3	1.3	98.9	1.1	14.7	14.6	0.2	Oman	37
Not yet in overshoot										
112	AFRICA	1.4	1.5	105.0	-5.0	963.9	1011.6	-47.8	Pakistan	67
113	Kyrgyzstan	1.2	1.3	107.8	-7.8	5.3	5.8	-0.4	Panama	114
114	Panama	2.9	3.1	109.5	-9.5	3.3	3.7	-0.3	Papua New Guinea	132
115	Senegal	1.1	1.2	109.7	-9.7	11.9	13.0	-1.2	Paraguay	157
116	Indonesia	1.2	1.4	111.5	-11.5	224.7	250.5	-25.8	Peru	149
117	Estonia	7.9	9.0	113.7	-13.7	1.3	1.5	-0.2	Philippines	45
118	Sierra Leone	1.1	1.2	114.1	-14.1	5.4	6.2	-0.8	Poland	47
119	Myanmar	1.8	2.0	114.3	-14.3	49.1	56.2	-7.0	Portugal	23
120	Chile	3.2	3.8	118.4	-18.4	16.6	19.7	-3.1	Qatar	19
121	Ecuador	1.9	2.3	123.6	-23.6	13.3	16.5	-3.2	Romania	92
122	Lao People's Dem. Republic	1.3	1.6	123.9	-23.9	6.1	7.5	-1.5	Russian Federation	125
123	Latvia	5.6	7.1	125.3	-25.3	2.3	2.8	-0.6	Rwanda	64
124	Mali	1.9	2.5	128.8	-28.8	12.4	16.0	-3.6	Saudi Arabia	12
125	Russian Federation	4.4	5.7	130.4	-30.4	141.9	185.1	-43.1	Senegal	115

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126	Sudan	1.7	2.4	139.6	-39.6	40.4	56.4	-16.0	Serbia	50
127	Botswana	2.7	3.8	143.1	-43.1	1.9	2.7	-0.8	Sierra Leone	118
128	Sweden	5.9	9.7	165.7	-65.7	9.2	15.2	-6.0	Singapore	1
129	Côte d'Ivoire	1.0	1.7	165.7	-65.7	20.1	33.3	-13.2	Slovakia	85
130	Guinea	1.7	2.8	170.8	-70.8	9.6	16.4	-6.8	Slovenia	53
131	Madagascar	1.8	3.1	171.2	-71.2	18.6	31.9	-13.2	Somalia	109
132	Papua New Guinea	2.1	3.8	175.5	-75.5	6.4	11.3	-4.8	South Africa	54
133	Cameroon	1.0	1.9	177.2	-77.2	18.7	33.1	-14.4	Spain	24
134	Eritrea	0.9	1.6	180.4	-80.4	4.8	8.6	-3.8	Sri Lanka	30
135	Nicaragua	1.6	2.8	181.0	-81.0	5.6	10.1	-4.5	Sudan	126
136	Chad	1.7	3.2	183.9	-83.9	10.6	19.5	-8.9	Swaziland	89
137	Uruguay	5.1	9.9	193.1	-93.1	3.3	6.4	-3.1	Sweden	128
138	Liberia	1.3	2.5	196.3	-96.3	3.6	7.1	-3.5	Switzerland	20
139	Finland	6.2	12.5	202.4	-102.4	5.3	10.7	-5.4	Syrian Arab Republic	43
140	OCEANIA	5.4	11.1	207.1	-107.1	34.5	71.4	-37.0	Tajikistan	69
141	Mauritania	2.6	5.5	210.8	-110.8	3.1	6.6	-3.5	Tanzania, United Republic of	97
142	L. AMERICA/CARRIBBEAN	2.6	5.5	212.2	-112.2	569.5	1208.4	-638.9	Thailand	49
143	Canada	7.0	14.9	212.7	-112.7	32.9	70.1	-37.1	Timor-Leste	151
144	Colombia	1.9	4.0	212.9	-112.9	44.4	94.5	-50.1	Togo	76
145	Australia	6.8	14.7	215.1	-115.1	20.9	44.9	-24.0	Trinidad and Tobago	57
146	New Zealand	4.9	10.8	220.1	-120.1	4.2	9.2	-5.0	Tunisia	58
147	Mozambique	0.8	1.9	245.4	-145.4	21.9	53.7	-31.8	Turkey	51
148	Zambia	0.9	2.3	247.6	-147.6	12.3	30.5	-18.2	Turkmenistan	96
149	Peru	1.5	3.9	251.2	-151.2	28.5	71.6	-43.1	Uganda	65
150	Mongolia	5.5	15.1	273.6	-173.6	2.6	7.1	-4.5	Ukraine	81
151	Timor-Leste	0.4	1.2	277.7	-177.7	1.1	3.0	-1.9	United Arab Emirates	5
152	Argentina	2.6	7.5	288.7	-188.7	39.5	114.0	-74.5	UNITED KINGDOM	22
153	Angola	1.0	3.0	299.2	-199.2	17.6	52.5	-35.0	UNITED STATES/ CANADA	79
154	Brazil	2.9	9.0	309.1	-209.1	190.1	587.7	-397.6	United States of America	48
155	Guinea-Bissau	1.0	3.2	334.6	-234.6	1.5	5.2	-3.6	Uruguay	137
156	Namibia	2.2	7.6	350.8	-250.8	2.1	7.3	-5.2	Uzbekistan	60
157	Paraguay	3.2	11.2	352.1	-252.1	6.1	21.6	-15.4	Venezuela, Bol. Republic of	108
158	Congo, Dem. Republic of	0.8	2.8	366.8	-266.8	62.5	229.3	-166.8	Viet Nam	77
159	Central African Republic	1.3	8.4	640.6	-540.6	4.3	27.3	-23.0	WORLD	86
160	Bolivia	2.6	18.8	731.8	-631.8	9.5	69.7	-60.2	Yemen	84
161	Congo	1.0	13.3	1375.3	-1275.3	3.6	48.8	-45.3	Zambia	148
162	Gabon	1.4	29.3	2074.5	-1974.5	1.4	29.5	-28.1	Zimbabwe	74