

Overshoot Index 2011

The Overshoot Index assesses the extent to which a country can support itself from its own renewable resources, by measuring current 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. The true balance between consumption and demand for resources will appear even more unfavourable when the progressive reduction towards zero use of non-renewables is factored into the numbers. A satisfactory way to do this has yet to be devised. Ecological footprint and biocapacity are measured in global hectares (hectares with world average biological productivity) per person. 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 2011 Data Tables, based on 2008 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'n (m)	sustainable pop'n (m)	overshoot pop'n (m)	alphabetical listing
Already in overshoot									
1	Singapore*	6.1	0.0	0.6	99.4	4.8	0.0	4.7	Afghanistan 83
2	Kuwait	9.7	0.4	4.4	95.6	2.5	0.1	2.4	Africa**
3	Israel	4.0	0.3	7.3	92.7	7.1	0.5	6.6	Albania 42
4	United Arab Emirates	8.4	0.6	7.6	92.4	8.1	0.6	7.5	Algeria 27
5	Jordan	2.1	0.2	11.1	88.9	5.8	0.7	5.2	Angola 142
6	Mauritius	4.6	0.6	12.3	87.7	1.3	0.2	1.1	Argentina 136
7	Lebanon	2.8	0.4	13.8	86.2	4.2	0.6	3.6	Armenia 36
8	Japan	4.2	0.6	14.2	85.8	126.5	17.9	108.6	Asia-Pacific**
9	Korea, Republic of	4.6	0.7	15.6	84.4	47.7	7.5	40.3	Australia 130
10	Netherlands	6.3	1.0	16.3	83.7	16.5	2.7	13.8	Austria 68
11	Saudi Arabia	4.0	0.7	16.4	83.6	26.2	4.3	21.9	Azerbaijan 28
12	Iraq	1.4	0.2	16.9	83.1	29.8	5.0	24.8	Bangladesh 71
13	Qatar	11.7	2.1	17.6	82.4	1.4	0.2	1.2	Belarus 94
14	Belgium	7.1	1.3	18.8	81.2	10.6	2.0	8.6	Belgium 14
15	Jamaica	1.7	0.3	19.0	81.0	2.7	0.5	2.2	Benin 79
16	Libyan Arab Jamahiriya	3.2	0.7	20.8	79.2	6.2	1.3	4.9	Bolivia 147
17	Switzerland	5.0	1.2	23.8	76.2	7.6	1.8	5.8	Bosnia and Herzegovina 62
18	Italy	4.5	1.1	25.3	74.7	59.9	15.2	44.7	Botswana 112
19	United Kingdom	4.7	1.3	28.5	71.5	61.5	17.5	44.0	Brazil 141
20	Occupied Palestinian Territory*	0.5	0.1	28.5	71.5	3.8	1.1	2.7	Bulgaria 82
21	Macedonia TFYR	5.4	1.6	29.0	71.0	2.1	0.6	1.5	Burkina Faso 97
22	Spain	4.7	1.5	30.8	69.2	45.1	13.9	31.2	Burundi 52
23	El Salvador	2.0	0.6	31.3	68.7	6.1	1.9	4.2	C. America/ Caribbean**
24	Portugal	4.1	1.3	31.4	68.6	10.6	3.3	7.3	Cambodia 93
25	Iran, Islamic Republic of	2.7	0.8	31.6	68.4	72.3	22.8	49.5	Cameroon 122
26	Greece	4.9	1.6	32.2	67.8	11.3	3.6	7.7	Canada 133
27	Algeria	1.6	0.6	34.1	65.9	34.4	11.7	22.7	Central African Republic 146
28	Azerbaijan	2.0	0.7	36.6	63.4	8.9	3.3	5.7	Chad 119
29	Cuba	1.9	0.7	37.4	62.6	11.3	4.2	7.0	Chile 108
	Middle East/Central Asia**	2.5	0.9	37.7	62.3	382.6	144.3	238.3	China 35
30	Dominican Republic	1.4	0.5	38.1	61.9	9.7	3.7	6.0	Colombia 129
31	Sri Lanka	1.2	0.5	38.4	61.6	20.5	7.9	12.6	Congo 148
32	Oman	5.7	2.2	38.6	61.4	2.6	1.0	1.6	Congo, Dem. Republic of 145
33	Egypt*	1.7	0.7	38.6	61.4	78.3	30.2	48.1	Costa Rica 69
34	Syrian Arab Republic	1.5	0.6	39.3	60.7	19.7	7.7	12.0	Croatia 75
35	China	2.1	0.9	40.8	59.2	1,358.8	554.0	804.8	Cuba 29
36	Armenia	1.7	0.7	41.8	58.2	3.1	1.3	1.8	Czech Republic 46

dependency ranking country/region name		eco footprint global ha pc		biocapacity global ha pc		self sufficiency %		dependency %		actual pop'n (m)		sustainable pop'n (m)		overshoot pop'n (m)		alphabetical listing	
37	Germany	4.6	2.0	42.7	57.3	82.5	35.2	47.2							Denmark	61	
38	Mexico	3.3	1.4	43.1	56.9	110.6	47.7	62.9							Dominican Republic	30	
39	South Africa	2.6	1.2	46.6	53.4	49.3	23.0	26.4							Ecuador	100	
	EU**	4.7	2.2	47.6	52.4	495.1	235.9	259.2							Egypt*	33	
40	Korea, Democratic People's	1.3	0.6	47.8	52.2	24.1	11.5	12.6							El Salvador	23	
41	Thailand	2.4	1.2	48.6	51.4	68.3	33.2	35.1							Eritrea	131	
42	Albania	1.8	0.9	48.7	51.3	3.2	1.5	1.6							Estonia	125	
43	Philippines*	1.3	0.6	49.1	50.9	90.2	44.3	45.9							Ethiopia	60	
44	Slovenia	5.2	2.6	49.8	50.2	2.0	1.0	1.0							EU**		
45	Uzbekistan	1.8	0.9	49.8	50.2	26.8	13.4	13.5							Finland	127	
46	Czech Republic	5.3	2.7	50.7	49.3	10.4	5.3	5.1							France	64	
47	Poland	3.9	2.0	50.9	49.1	38.2	19.5	18.8							Gabon	149	
48	Turkey	2.6	1.3	51.2	48.8	70.9	36.3	34.6							Gambia	90	
49	Uganda	1.6	0.8	51.8	48.2	31.3	16.2	15.1							Georgia	89	
50	Haiti	0.6	0.3	51.9	48.1	9.7	5.1	4.7							Germany	37	
	Asia-Pacific**	1.6	0.9	52.5	47.5	3,725.2	1954.0	1771.2							Ghana	81	
51	Morocco	1.3	0.7	52.6	47.4	31.3	16.5	14.8							Greece	26	
52	Burundi	0.8	0.4	52.7	47.3	7.9	4.2	3.8							Guatemala	63	
53	Pakistan	0.8	0.4	53.4	46.6	167.4	89.4	78.1							Guinea	121	
54	United States of America	7.2	3.9	53.7	46.3	305.0	163.8	141.2							Guinea-Bissau	140	
55	Tunisia	1.8	1.0	54.3	45.7	10.2	5.6	4.7							Haiti	50	
	High-income countries	5.6	3.1	54.5	45.5	1,037.0	565.6	471.4							High-income countries		
56	Serbia*	2.6	1.4	54.8	45.2	9.8	5.4	4.4							Honduras	106	
57	Ireland	6.2	3.4	54.9	45.1	4.4	2.4	2.0							Hungary	84	
58	India	0.9	0.5	55.5	44.5	1,190.9	661.1	529.7							India	58	
59	Kenya	0.9	0.5	55.9	44.1	38.5	21.5	17.0							Indonesia	109	
60	Ethiopia	1.1	0.6	57.3	42.7	79.4	45.5	33.9							Iran, Islamic Republic of	25	
	C. America/ Caribbean**	1.7	1.0	57.9	42.1	66.8	38.6	28.1							Iraq	12	
61	Denmark	8.3	4.8	58.2	41.8	5.5	3.2	2.3							Ireland	57	
62	Bosnia and Herzegovina	2.7	1.6	59.7	40.3	3.8	2.3	1.5							Israel	3	
63	Guatemala	1.8	1.1	60.1	39.9	13.7	8.2	5.5							Italy	18	
64	France	4.9	3.0	60.9	39.1	62.1	37.8	24.3							Jamaica	15	
65	Slovakia	4.7	2.9	61.3	38.7	5.4	3.3	2.1							Japan	8	
66	Zimbabwe	1.2	0.7	61.5	38.5	12.5	7.7	4.8							Jordan	5	
67	Tajikistan	0.9	0.6	61.7	38.3	6.7	4.1	2.6							Kazakhstan	92	
68	Austria	5.3	3.3	63.1	36.9	8.3	5.3	3.1							Kenya	59	
69	Costa Rica	2.5	1.6	63.6	36.4	4.5	2.9	1.6							Korea, Democratic People's	40	
70	Moldova	2.1	1.3	63.6	36.4	3.6	2.3	1.3							Korea, Republic of	9	
71	Bangladesh	0.7	0.4	63.7	36.3	145.5	92.6	52.9							Kuwait	2	
72	Malaysia	3.9	2.5	64.1	35.9	27.5	17.6	9.9							Kyrgyzstan	104	
73	Togo	1.0	0.7	65.2	34.8	5.8	3.8	2.0							Lao People's Democratic	111	
	World	2.7	1.8	65.8	34.2	6,739.6	4433.7	2305.9							Latvia	120	
	North America**	6.2	4.1	66.1	33.9	448.9	296.8	152.1							Lebanon	7	
74	Swaziland	1.5	1.0	66.5	33.5	1.2	0.8	0.4							Lesotho	85	
75	Croatia	3.9	2.6	67.6	32.4	4.4	3.0	1.4							Liberia	132	
76	Yemen	0.9	0.6	68.4	31.6	22.6	15.5	7.1							Libyan Arab Jamahiriya	16	
77	Ukraine	3.2	2.2	69.8	30.2	46.0	32.1	13.9							Lithuania	102	
78	Nepal	0.8	0.5	70.1	29.9	28.9	20.3	8.6							Low-income countries		
79	Benin	1.4	1.0	72.3	27.7	8.4	6.0	2.3							Macedonia TFYR	21	
80	Rwanda	0.7	0.5	73.7	26.3	10.0	7.4	2.6							Madagascar	135	
81	Ghana	1.7	1.3	73.7	26.3	23.3	17.2	6.1							Malawi	96	
82	Bulgaria	3.6	2.6	74.2	25.8	7.6	5.6	2.0							Malaysia	72	
83	Afghanistan	0.5	0.4	74.6	25.4	29.8	22.3	7.6							Mali	110	
84	Hungary	3.6	2.7	74.6	25.4	10.0	7.5	2.5							Mauritania	123	
85	Lesotho	1.1	0.8	75.8	24.2	2.1	1.6	0.5							Mauritius	6	
86	Nigeria	1.4	1.1	78.0	22.0	150.7	117.5	33.2							Mexico	38	
87	Viet Nam	1.4	1.1	78.7	21.3	86.0	67.6	18.3							Middle East/Central Asia**		
88	Turkmenistan	4.0	3.2	80.1	19.9	4.9	3.9	1.0							Middle-income countries		
89	Georgia	1.4	1.2	81.7	18.3	4.4	3.6	0.8							Moldova	70	
90	Gambia	1.4	1.2	81.9	18.1	1.6	1.3	0.3							Mongolia	138	
91	Romania	2.8	2.3	82.0	18.0	21.6	17.7	3.9							Morocco	51	
92	Kazakhstan	4.1	3.5	84.0	16.0	15.7	13.1	2.5							Mozambique	139	
93	Cambodia	1.2	1.0	84.4	15.6	13.8	11.7	2.2							Myanmar	107	
94	Belarus	4.0	3.4	85.2	14.8	9.7	8.2	1.4							Namibia	143	
95	Tanzania, United Republic of	1.2	1.0	85.5	14.5	42.3	36.2	6.1							Nepal	78	
96	Malawi	0.8	0.7	85.8	14.2	14.0	12.0	2.0							Netherlands	10	

dependency ranking country / region name		eco footprint global ha pc		biocapacity global ha pc		self sufficiency %		dependency %		actual pop'n (m)		sustainable pop'n (m)		overshoot pop'n (m)		alphabetical listing	
97	Burkina Faso	1.5	1.4	89.5	10.5	15.5	13.9	1.6	New Zealand*	134							
	Middle-income countries	1.9	1.7	89.6	10.4	4,394.1	3939.3	454.8	Nicaragua	115							
98	Panama	3.0	2.7	90.0	10.0	3.4	3.1	0.3	Nigeria	86							
99	Senegal	1.5	1.4	91.5	8.5	11.8	10.8	1.0	North America**								
100	Ecuador	2.4	2.2	92.1	7.9	14.1	12.9	1.1	Norway	105							
101	Somalia	1.4	1.4	94.7	5.3	8.9	8.4	0.5									
102	Lithuania	4.4	4.3	98.6	1.4	3.4	3.3	0.0	Occupied Palestinian Territory*	20							
103	Venezuela, Bolivarian Rep. of	3.0	3.0	99.4	0.6	28.1	27.9	0.2	Oman	32							
	Low-income countries	1.1	1.1	99.9	0.1	1,297.5	1296.8	0.7	Other Europe**								
	Not yet in overshoot								Pakistan	53							
104	Kyrgyzstan	1.3	1.3	102.8	-2.8	5.2	5.4	-0.1	Panama	98							
	Africa**	1.4	1.5	106.8	-6.8	938.4	1002.3	-63.8	Papua New Guinea	113							
105	Norway	4.8	5.4	113.1	-13.1	4.8	5.4	-0.6	Paraguay	144							
106	Honduras	1.7	2.0	114.0	-14.0	7.3	8.3	-1.0	Peru	126							
107	Myanmar	1.9	2.2	114.5	-14.5	47.3	54.1	-6.9	Philippines*	43							
108	Chile	3.2	3.7	115.5	-15.5	16.8	19.4	-2.6	Poland	47							
109	Indonesia	1.1	1.3	117.2	-17.2	235.0	275.4	-40.5	Portugal	24							
	Other Europe**	4.0	4.9	121.8	-21.8	238.1	289.9	-51.8	Qatar	13							
110	Mali	1.9	2.3	122.5	-22.5	14.5	17.7	-3.3	Romania	91							
111	Lao People's Democratic	1.3	1.6	126.5	-26.5	6.0	7.6	-1.6	Russian Federation	116							
112	Botswana	2.8	3.8	132.1	-32.1	2.0	2.6	-0.6	Rwanda	80							
113	Papua New Guinea	2.7	3.7	136.8	-36.8	6.5	9.0	-2.4	Saudi Arabia	11							
114	Sudan	1.6	2.3	143.4	-43.4	41.4	59.4	-18.0	Senegal	99							
115	Nicaragua	1.6	2.3	149.2	-49.2	5.6	8.4	-2.8	Serbia*	56							
116	Russian Federation	4.4	6.6	150.6	-50.6	143.2	215.5	-72.4	Sierra Leone	117							
117	Sierra Leone	1.1	1.7	151.5	-51.5	5.6	8.5	-2.9	Singapore*	1							
118	Sweden	5.7	9.5	166.6	-66.6	9.2	15.4	-6.1	Slovakia	65							
119	Chad	1.9	3.2	167.5	-67.5	10.7	17.8	-7.2	Slovenia	44							
120	Latvia	4.0	6.6	167.7	-67.7	2.3	3.8	-1.5	Somalia	101							
121	Guinea	1.7	2.9	170.6	-70.6	9.6	16.3	-6.8	South Africa	39							
122	Cameroon	1.1	1.9	171.8	-71.8	18.8	32.2	-13.5	South America**								
123	Mauritania	2.9	5.2	182.0	-82.0	3.3	6.0	-2.7	Spain	22							
124	Timor-Leste*	0.5	0.9	182.5	-82.5	1.1	2.0	-0.9	Sri Lanka	31							
125	Estonia	4.7	8.7	184.4	-84.4	1.3	2.5	-1.1	Sudan	114							
126	Peru	2.0	3.8	188.0	-88.0	28.5	53.5	-25.1	Swaziland	74							
127	Finland	6.2	12.2	196.2	-96.2	5.3	10.4	-5.1	Sweden	118							
128	Uruguay	5.1	10.0	197.6	-97.6	3.3	6.6	-3.3	Switzerland	17							
129	Colombia	1.8	3.9	216.1	-116.1	45.0	97.3	-52.3	Syrian Arab Republic	34							
130	Australia	6.7	14.6	218.0	-118.0	21.5	46.9	-25.4	Tajikistan	67							
131	Eritrea	0.7	1.5	223.2	-123.2	4.9	11.0	-6.1	Tanzania, United Republic of	95							
132	Liberia	1.3	3.0	230.7	-130.7	3.7	8.4	-4.8	Thailand	41							
133	Canada	6.4	14.9	232.1	-132.1	33.3	77.4	-44.0	Timor-Leste*	124							
134	New Zealand*	4.3	10.2	236.4	-136.4	4.3	10.1	-5.8	Togo	73							
135	Madagascar	1.2	2.9	252.2	-152.2	19.5	49.3	-29.7	Tunisia	55							
136	Argentina	2.7	7.1	262.7	-162.7	39.7	104.3	-64.6	Turkey	48							
	South America**	2.7	7.4	273.2	-173.2	390.1	1065.9	-675.7	Turkmenistan	88							
137	Zambia	0.8	2.3	274.6	-174.6	12.4	34.0	-21.6	Uganda	49							
138	Mongolia	5.5	15.3	277.3	-177.3	2.7	7.4	-4.7	Ukraine	77							
139	Mozambique	0.8	2.2	281.4	-181.4	22.3	62.8	-40.5	United Arab Emirates	4							
140	Guinea-Bissau	1.1	3.4	308.2	-208.2	1.5	4.5	-3.0	United Kingdom	19							
141	Brazil	2.9	9.6	328.0	-228.0	191.5	628.3	-436.7	United States of America	54							
142	Angola	0.9	3.0	334.8	-234.8	18.0	60.4	-42.4	Uruguay	128							
143	Namibia	2.0	7.2	353.0	-253.0	2.2	7.8	-5.6	Uzbekistan	45							
144	Paraguay	3.0	10.9	364.6	-264.6	6.2	22.7	-16.5	Venezuela, Bolivarian Rep. of	103							
145	Congo, Dem. Republic of	0.8	3.1	409.5	-309.5	62.5	255.8	-193.3	Viet Nam	87							
146	Central African Republic	1.4	8.4	615.9	-515.9	4.2	26.1	-21.9	World								
147	Bolivia	2.6	18.4	705.6	-605.6	9.6	67.9	-58.2	Yemen	76							
148	Congo	1.1	12.2	1127.7	-1027.7	3.8	43.3	-39.4	Zambia	137							
149	Gabon	1.8	28.7	1582.8	-1482.8	1.5	23.0	-21.5	Zimbabwe	66							

NOTES:

World population is inclusive of countries not included in the table

* Country Notes: See GFN Data table

** Country grouping results are for stated countries only