

Comparing Gas Costs

Gallon: \$1.35

Results of Formulas

Car	Miles/Yr	MPG	Gals/Yr	Gas Costs/Yr
A	12000	30	400	\$540
B		25	0	\$0
C		20	0	\$0

Apparent Consumption

	Total (in exajoules)			Average annual consumption per capita ** (in g)		
	U.S.	World	U.S. as % of World	U.S.	World	U.S. as % of World
Total fossil fuels	70.4	283.7	24.8	282.9	54.7	517.1
Solids	20.0	97.0	20.6	80.2	18.7	428.4
Liquids	31.6	116.6	27.1	127.2	22.5	565.9
Gas	18.8	70.1	26.8	75.6	13.5	558.5

Data excerpted from V

Notes:

* Apparent Consumption = production plus imports minus exports.

** Average annual consumption per capita.

Source:

United Nations Statistical Office, U.N. Energy Yearbook (United Nations, New York, May 1991).

Relative Per Capita Emissions			
Ranking by Intergovernmental Panel on Climate Change (IPCC)			Ranking by World Resource Institute
Relative Per Capita Emissions{a}	Country	Rank	Country
14.5	United Arab Emirates	1	United Arab Emirates
12.2	Qatar	2	Qatar
10.5	Brunei	3	Luxembourg
9.8	Bahrain	4	Côte d'Ivoire
9.8	Côte d'Ivoire	5	Bahrain
9.3	Luxembourg	6	United States
8.8	United States	7	Brunei
8.2	Australia	8	Australia
7.8	Canada	9	Canada
7.7	Trinidad and Tobago	10	Trinidad and Tobago
7.0	Guinea-Bissau	11	Guinea-Bissau
6.5	Kuwait	12	Kuwait
6.0	Norway	13	Czechoslovakia
5.8	Ecuador	14	U.S.S.R.
5.8	U.S.S.R.	15	Ecuador
5.7	Czechoslovakia	16	Germany {b}
5.7	Nicaragua	17	Norway
5.6	Paraguay	18	Nicaragua
5.6	New Zealand	19	Japan
5.4	Gabon	20	Paraguay
5.4	Liberia	21	Singapore
5.3	Germany {b}	22	Liberia
5.3	Colombia	23	Colombia
5.2	Malaysia	24	New Zealand
5.0	Singapore	25	Malaysia
5.0	Saudi Arabia	26	Saudi Arabia
4.7	United Kingdom	27	United Kingdom
4.7	Poland	28	Gabon
4.6	Japan	29	Belgium
4.6	Ireland	30	Ireland
4.5	Bulgaria	31	Denmark
4.5	Belgium	32	Israel
4.3	Denmark	33	Poland
4.3	Madagascar	34	Netherlands
4.3	Finland	35	Finland
4.3	Netherlands	36	Bulgaria
3.9	Israel	37	Malta
3.8	South Africa	38	Madagascar
3.7	Romania	39	Greece
3.5	Costa Rica	40	Austria
3.5	Greece	41	Italy

3.5	Iceland	42	South Africa
3.5	Austria	43	France
3.4	Myanmar	44	Romania
3.4	Venezuela	45	Iceland
3.4	Italy	46	Sweden
3.4	Libya	47	Costa Rica
3.3	France	48	Spain
3.3	Cameroon	49	Switzerland
3.3	Panama	50	Cyprus

Sources:

1. Intergovernmental Panel on Climate Change (IPCC), Climate Change: The IPCC Scientific Assessment, J. Houghton, G. J. Jenkins, and J. J. Ephraums, eds. (Cambridge University Press, Cambridge, U. K., 1990).
2. Chapter 24, "Atmosphere and Climate," Tables 24.1 and 24.2.

Notes:

- a. 1.00 = world median.
- b. Data for Germany include both the former Federal Republic of Germany and the German Democratic Republic.

[a Base, 1992, W](#)

Greenhouse

Ranking by Intergovernmental Panel on Climate Change (IPCC)

Ranking by World Resource

Percent	Country	Rank	Country
17.8	United States	1	United States
13.6	U.S.S.R.	2	U.S.S.R.
9.1	China	3	China
4.7	Japan	4	Japan
4.1	India	5	Brazil
3.9	Brazil	6	India
3.4	Germany {a}	7	Germany {a}
2.2	United Kingdom	8	United Kingdom
2.0	Mexico	9	Mexico
1.7	Indonesia	10	Italy
1.7	Canada	11	France
1.6	Italy	12	Canada
1.5	France	13	Indonesia
1.5	Thailand	14	Poland
1.5	Poland	15	Thailand
1.4	Colombia	16	Colombia
1.1	Myanmar	17	Australia
1.1	Nigeria	18	South Africa
1.1	Australia	19	Myanmar
1.1	South Africa	20	Spain

0.9	Côte d'Ivoire	21	Nigeria
0.9	Spain	22	Côte d'Ivoire
0.8	Korea, Rep	23	Korea, Rep
0.8	Philippines	24	Czechoslovakia
0.7	Czechoslovakia	25	Malaysia
0.7	Malaysia	26	Philippines
0.7	Romania	27	Romania
0.7	Viet Nam	28	Lao People's Dem Rep
0.7	Lao People's Dem Rep	29	Viet Nam
0.6	Saudi Arabia	30	Saudi Arabia
0.6	Iran, Islamic Rep	31	Iran, Islamic Rep
0.6	Argentina	32	Netherlands
0.5	Venezuela	33	Argentina
0.5	Netherlands	34	Venezuela
0.5	Ecuador	35	Yugoslavia
0.5	Korea, Dem People's Rep	36	Ecuador
0.5	Yugoslavia	37	Pakistan
0.5	Peru	38	Peru
0.5	Pakistan	39	Korea, Dem People's Rep
0.4	Bangladesh	40	Turkey
0.4	Turkey	41	Belgium
0.4	Madagascar	42	Madagascar
0.4	Zaire	43	Zaire
0.4	Belgium	44	Bulgaria
0.3	Sudan	45	Greece
0.3	Bulgaria	46	Sudan
0.3	Cameroon	47	Egypt
0.3	Egypt	48	Bangladesh
0.3	Greece	49	Cameroon
0.3	Iraq	50	Hungary

Sources:

1. Intergovernmental Panel on Climate Change (IPCC), Climate Change: The IPCC Scientific Assessment, J. Houghton, G. J. Jenkins, and J. J. Ephraums, eds. (Cambridge University Cambridge, U. K., 1990).
2. Chapter 24, "Atmosphere and Climate," Tables 24.1 and 24.2.

Note:

- a. Data for Germany include both the former Federal Republic of Germany and the German Democratic Republic.

a Base, 1992, W

**50 Countries
Emissions of**

Rank	Country	Total CO2 Emissions (million metric tons)
1	United States	4869005

2	U.S.S.R.	3804001
3	China	2388613
4	Japan	1040554
5	Germany {a}	964028
6	India	651936
7	United Kingdom	568451
8	Canada	445530
9	Poland	440929
10	Italy	389747
11	France	357163
12	Mexico	319702
13	South Africa	278468
14	Australia	257480
15	Czechoslovakia	226347
16	Korea, Rep.	221104
17	Romania	212193
18	Brazil	206957
19	Spain	203227
20	Saudi Arabia	173776
21	Iran, Islamic Rep.	166074
22	Korea, Dem. People's	151488
23	Indonesia	137726
24	Yugoslavia	132901
25	Turkey	126078
26	Netherlands	124990
27	Argentina	118157
28	Bulgaria	106989
29	Belgium	98104
30	Venezuela	95887
31	Egypt	79483
32	Nigeria	79263
33	Thailand	77680
34	Greece	70920
35	Iraq	68898
36	Hungary	64076
37	Pakistan	60973
38	Sweden	58888
39	Colombia	53831
40	Austria	51699
41	Finland	51300
42	United Arab Emirates	50944
43	Malaysia	49061
44	Denmark	47009
45	Algeria	46492
46	Norway	46009
47	Philippines	40960
48	Portugal	40912
49	Switzerland	39326
50	Libya	37842

Source: Chapter 24, "Atmosphere and Climate,"
Table 24.1.

Note: a. Data for Germany include both the former
Federal Republic of Germany and the
German Democratic Republic.

World Resources
Institute, Washington, D.C.

Municipal Waste in OECD

	Annual Municipal Waste Generation		Municipal Waste (per Person)		
	Year of Estimate	(000 metric tons)	Per Capita (kg)	Year of Estimate	Paper and Cardboard (kg)
Australia	1980	10000	681	1980	26.0
Austria	1988	2700	355	1985	33.6
Belgium	1989	3,470 a	349	1989	28.3
Canada	1989	16000	625	1989	36.5
Denmark	1985	2400	469	1985	38.6
Finland	1989	2500	504	1985 c	40.0
France	1989	17000	303	1989	27.5
Germany {e}	1987	19483	318	1985	17.9
Greece	1989	3147	259	1989	20.0
Iceland	1985	93	386	X	X
Ireland	1984	1110	311	1984	24.5
Italy	1989	17300	301	1986	22.3
Japan	1988	48283	394	1989	45.5
Luxembourg	1990	170	466	1985	17.2
Netherlands	1988	6900	465	1988	24.2
New Zealand	1982	2106	670	1980	33.6
Norway	1989	2000	473	1988	30.0
Portugal	1985	2350	231	1985	19.0
Spain	1988	12546	322	1989	20.0
Sweden	1985	2650	317	1980	43.0
Switzerland	1989	2850	424	1989	32.0
Turkey	1989	19500	353	X	X
United Kingdom	1989 f	18000	357	1980 f	29.0
United States	1986	208760	864	1984	34.7

Sources:

Organisation for Economic Co-operation and Development and United Nations Statistical Commission for Europe (ECE).

Notes:

- a. Total is sum from different years and regions: 1982 for Brussels region, 1987 for Flanders
- b. Refers to 1985.
- c. Household wastes only.
- d. Refers to 1980.
- e. Fed. Rep.
- f. England and Wales only.

(Data excerpted)

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**Relative Per
Capita Emis-
sions{a}**

15.7

12.4

10.5

10.4

10.2

9.8

9.8

8.8

8.6

7.6

7.2

7.1

6.4

6.2

6.2

6.1

6.1

6.1

6.0

5.9

5.7

5.7

5.6

5.6

5.6

5.5

5.5

5.5

5.4

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5.2

5.1

5.1

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4.9

4.9

4.4

4.4

4.3

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4.2

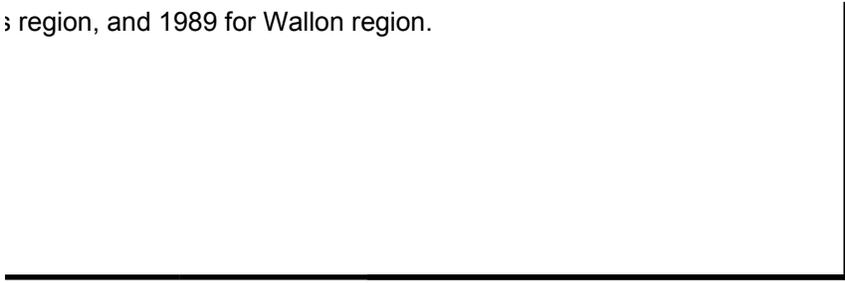
4.1
4.1
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3.9
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Percent
18.4
13.5
8.4
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3.6
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2.0
1.8
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1.7
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1.1
1.1

Plastic	Glass	Metals	Other	Organic as Percentage of Inorganic
6.1	15.1	7.0	45.8	41.4
7.0	10.4	3.7	45.3	60.5
7.7	7.6	3.7	52.7	47.6
4.7	6.6	6.6	45.6	74.3 b
3.4	5.4	5.0	47.6	81.3
8.0	4.0	3.0	45.0	85.0
4.5	7.5	6.5	54.0	59.0 d
5.4	9.2	3.2	64.3	63.4 d
7.0	3.0	4.0	66.0	57.0
X	X	X	X	X
14.0	7.5	3.0	51.0	56.0
7.2	6.2	3.1	61.2	64.4
8.3	1.0	1.3	43.9	77.2
6.4	7.2	2.6	66.6	44.0
7.1	7.2	3.2	58.3	88.3
3.0	2.5	7.6	53.3	37.0
5.0	3.0	7.0	55.0	77.0
3.0	3.0	3.5	71.5	74.5
7.0	6.0	4.0	63.0	49.0
10.0	5.0	6.0	36.0	89.0
13.0	7.0	6.0	42.0	70.0
X	X	X	X	X
7.0	10.0	8.0	46.0	58.0
6.7	9.0	8.8	40.8	37.5

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s region, and 1989 for Wallon region.



Estimated World Population (millions) Industrialized vs. Developing Countries

	1950	1970	1990	2000	2025
Industrialized	832	1049	1207	1264	1354
Developing	1684	2649	4086	4997	7150

Data excerpted from World Resources Data Base, 1992, World Resources Institute, Washington, D.C.

Tropical Forest Area, 1981 to 1990

Data excerpted from World Resources Data Base, 1992, World Resources Institute, Washington, D.C.

	Area Deforested Daily (Averag
Latin America	22.7
Asia	9.9
Africa	13.7

Paper and Paperboard Use

	Percent of World Total
Canada	2.7
Germany	6.2
France	3.6
Italy	2.9
Japan	11.9
U.K.	4.2
U.S.	33.1
All Others	35.4

Data excerpted from World Resources Data Base, 1992, World Resources Institute, Washington, D.C.

Percent Share of Global Greenhouse Emissions, 1989

U.S.	17.8
U.S.S.R.	13.6
China	9.1
Japan	4.7
India	4.1
Brazil	3.9
Germany*	3.4
U.K.	2.2
Mexico	2.0
Indonesia	1.7
Canada	1.7
Italy	1.6
France	1.5

* Includes both the former FRG and the GDR

Data excerpted from World Resources Data Base, 1992, World Resources Institute, Washington, D.C.

Average Annual Consumption of Fossil Fuels Per Capita, 1989

Largest OECD Economies vs. World

World	54.71
Canada	270.95
Italy	106.56
France	94.98
Japan	109.80
Germany	160.98
U.K.	142.11
U.S.	282.93

Data excerpted from World Resources Data Base, 1992, World Resources Institute, Washington, D.C.

Proven Commercial Energy Reserves, 1987

Years (at 1989 production rate) before reserves are extracted

	Oil	Natural Gas	Coal
Developing	62	155	658
Industrialized	12	39	238

Municipal Waste, Estimated between 1980-89

	Composition (as percent of total)					
	Per Capita	Paper/Cardboard	Plastic	Glass	Metals	Other
Australia	681	26.0	6.1	15.1	7.0	45.8
Austria	355	33.6	7.0	10.4	3.7	45.3
Belgium	349	28.3	7.7	7.6	3.7	52.7
Canada	625	36.5	4.7	6.6	6.6	45.6
Denmark	469	38.6	3.4	5.4	5.0	47.6
Finland	504	40.0	8.0	4.0	3.0	45.0
France	303	27.5	4.5	7.5	6.5	54.0
Germany*	318	17.9	5.4	9.2	3.2	64.3
Ireland	311	24.5	14.0	7.5	3.0	51.0
Italy	301	22.3	7.2	6.2	3.1	61.2
Japan	394	45.5	8.3	1.0	1.3	43.9
Norway	473	30.0	5.0	3.0	7.0	55.0
Portugal	231	19.0	3.0	3.0	3.5	71.5
Spain	322	20.0	7.0	6.0	4.0	63.0
Sweden	317	43.0	10.0	5.0	6.0	36.0
Switzerland	424	32.0	13.0	7.0	6.0	42.0
U.K.	357	29.0	7.0	10.0	8.0	46.0
U.S.	864	34.7	6.7	9.0	8.8	40.8

*FDR only

Data excerpted from World Resources Data Base, 1992, World Resources Institute, Washington, D.C.

Carbon Dioxide in the Atmosphere

Data excerpted from World Resources Data Base, 1992, World Resources Institute, Washington, D.C.

	Parts per million
Preindustrial (est.)	280.0
1959	315.8
1960	316.8
1961	317.5
1962	318.3
1963	318.8
1964 (est.)	319.0
1965	319.9
1966	321.2
1967	322.0
1968	322.8
1969	323.9
1970	325.3
1971	326.2
1972	327.3
1973	329.5
1974	330.1
1975	331.0
1976	332.0
1977	333.7
1978	335.3
1979	336.7
1980	338.5
1981	339.8
1982	341.0
1983	342.6
1984	344.3
1985	345.7
1986	347.0
1987	348.8
1988	351.4
1989	352.8
1990	354.0