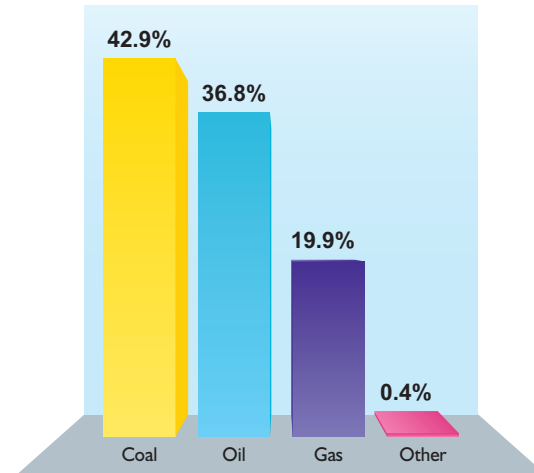


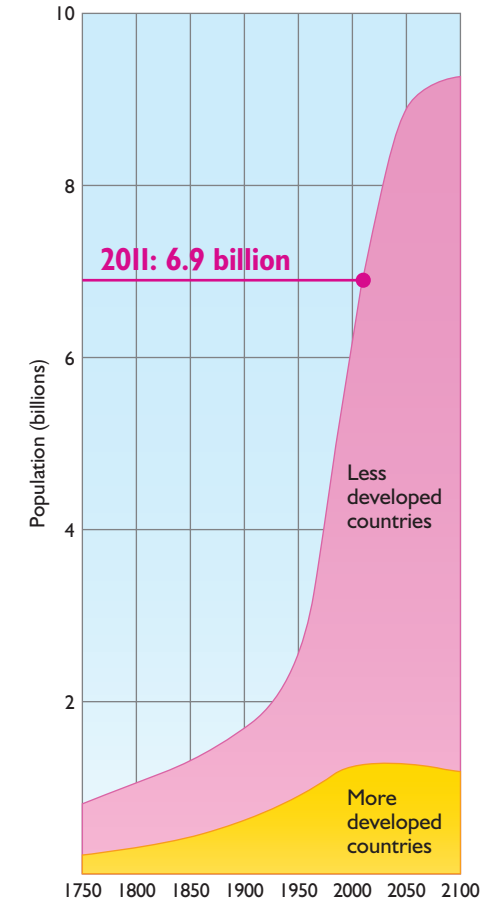


# NUCLEAR POWER, ENERGY AND THE ENVIRONMENT



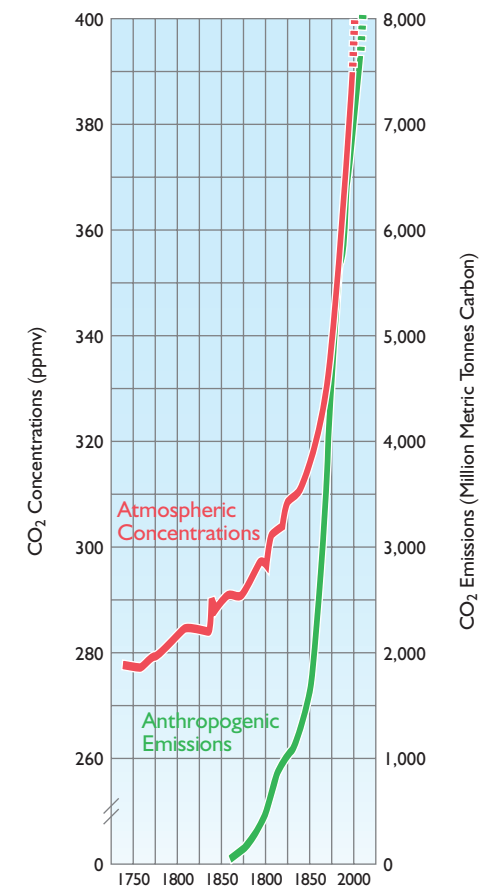
Global CO<sub>2</sub> emissions = 29 billion tonnes per year

## World population growth



Sources: United Nations, World Population Prospects The Population Reference Bureau

## CO<sub>2</sub>: Anthropogenic emissions and atmospheric concentrations



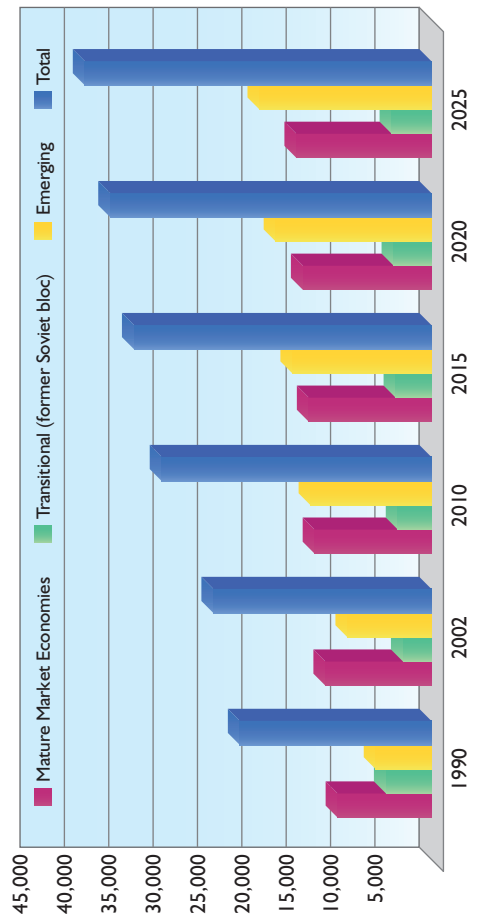
Source: Oak Ridge National Laboratory

## Countries with nuclear electricity

	Nuclear capacity (MWe)	% share of electricity 2010
USA	101,421	20
France	63,130	74
Japan	44,642	29
Russia	23,084	17
Germany	20,339	28
South Korea	18,716	32
Ukraine	13,168	48
Canada	12,679	15
China	11,271	2
UK	10,745	16
Sweden	9,399	38
Spain	7,448	20
Belgium	5,943	51
India	4,385	3
Czech Republic	3,722	33
Switzerland	3,252	38
Finland	2,741	28
Bulgaria	1,906	33
Brazil	1,901	3
Hungary	1,880	42
Slovakia	1,816	52
South Africa	1,800	5
Mexico	1,600	4
Romania	1,310	20
Argentina	935	6
Pakistan	725	3
Slovenia	696	37
Netherlands	485	3
Armenia	376	39
<b>Total*</b>	<b>376,442</b>	<b>14</b>

\* Includes 6 reactors on Taiwan with a total of 4927 MWe. Sources: WNA, IAEA

## World CO<sub>2</sub> emissions



Source: US Energy Information Administration

## Energy and emissions, selected countries (2008)

Location	Population (million)	GDP (billion US\$)	CO <sub>2</sub> emissions (million tonnes)	Energy use per capita (toe <sup>a</sup> )	CO <sub>2</sub> (tonnes/toe <sup>a</sup> )
Australia	22	516	398	6.1	3.1
Austria	8	226	69	4.0	2.1
Bangladesh	160	74	46	0.2	1.7
Belgium	11	269	111	5.5	1.9
Brazil	192	854	365	1.3	1.5
Bulgaria	8	20	49	2.6	2.5
Canada	33	870	551	8.0	2.1
China	1,326	2,603	6,508	1.6	3.1
Colombia	45	134	60	0.7	2.0
Congo (DR)	64	6	3	0.4	0.1
Croatia	4	30	21	2.1	2.3
Czech Rep	10	79	117	4.3	2.6
Denmark	5	178	48	3.5	2.6
Egypt	82	145	174	0.9	2.5
Ethiopia	81	15	7	0.4	0.2
Finland	5	154	57	6.6	1.6
France	64	1,515	368	4.2	1.4
Germany	82	2,095	804	4.1	2.4
Hungary	10	61	53	2.6	2.0
Iceland	0	12	2	16.5	0.4
India	1,140	826	1,428	0.5	2.3
Indonesia	228	247	385	0.9	1.9
Iran	72	160	505	2.8	2.5
Ireland	4	137	44	3.4	2.9
Italy	60	1,176	430	2.9	2.4
Japan	128	5,166	1,151	3.9	2.3

Location	Population (million)	GDP (billion US\$)	CO <sub>2</sub> emissions (million tonnes)	Energy use per capita (toe <sup>a</sup> )	CO <sub>2</sub> (tonnes/toe <sup>a</sup> )
Lithuania	3	20	14	2.7	1.6
Mexico	107	769	408	1.7	2.3
Myanmar	49	19	12	0.3	0.8
Netherlands	16	449	178	4.9	2.2
New Zealand	4	66	33	3.9	2.0
Nigeria	151	74	52	0.7	0.5
North Korea	24	12	69	0.9	3.4
Norway	5	201	38	6.2	1.3
Pakistan	166	113	134	0.5	1.6
Philippines	90	111	72	0.5	1.8
Romania	22	61	90	1.8	2.3
Russia	142	430	1,594	4.8	2.3
Saudi Arabia	25	252	389	6.6	2.4
Slovakia	5	33	36	3.4	2.0
Slovenia	2	27	17	3.8	2.2
South Africa	49	182	337	2.8	2.5
South Korea	49	751	501	4.7	2.2
Spain	46	741	318	3.0	2.3
Sweden	9	297	46	5.4	0.9
Switzerland	8	291	44	3.5	1.6
Thailand	67	178	229	1.6	2.1
Turkey	71	376	264	1.4	2.7
UK	61	1,773	511	3.4	2.5
Ukraine	46	53	310	2.9	2.3
USA	305	11,742	5,596	7.5	2.5
Vietnam	86	56	103	0.7	1.7
<b>World</b>	<b>6,688</b>	<b>40,482</b>	<b>29,381</b>	<b>1.8</b>	<b>2.4</b>

<sup>a</sup> toe = tonnes of oil equivalent  
Source: IEA

## CO<sub>2</sub> emissions per capita (2008)

Location	tonnes	Location	tonnes	Location	tonnes
Australia	18.5	Norway	7.9	Mexico	3.8
USA	18.4	New Zealand	7.7	Turkey	3.7
Canada	16.5	Italy	7.2	Thailand	3.4
Saudi Arabia	15.8	Iran	7.0	North Korea	2.9
Taiwan	11.5	Spain	7.0	Egypt	2.1
Russia	11.2	South Africa	6.9	Brazil	1.9
Czech Rep	11.2	Iceland	6.9	Indonesia	1.7
Netherlands	10.8	Slovakia	6.7	Colombia	1.4
Finland	10.7	Ukraine	6.7	India	1.3
Belgium	10.4	Bulgaria	6.4	Vietnam	1.2
South Korea	10.3	France	5.7	Pakistan	0.8
Ireland	9.9	Switzerland	5.7	Philippines	0.8
Germany	9.8	Hungary	5.3	Nigeria	0.4
Japan	9.0	Sweden	5.0	Cote d'Ivoire	0.3
Denmark	8.8	China	4.9	Bangladesh	0.3
UK	8.3	Croatia	4.7	Myanmar	0.2
Austria	8.3	Lithuania	4.2	Ethiopia	0.1
Slovenia	8.3	Romania	4.2	D.R. of Congo	0.0
<b>World</b>					<b>4.4</b>

Source: IEA

## CO<sub>2</sub> emissions per GDP (2008)

Location	kg/US\$	Location	kg/US\$	Location	kg/US\$
Sweden	0.15	D.R. of Congo	0.45	Hungary	0.86
Switzerland	0.15	Ethiopia	0.45	Slovakia	1.10
Iceland	0.18	USA	0.48	Pakistan	1.19
Norway	0.19	New Zealand	0.50	Egypt	1.20
Japan	0.22	Mexico	0.53	Thailand	1.29
France	0.24	Cote d'Ivoire	0.59	Romania	1.47
Denmark	0.27	Slovenia	0.60	Czech Rep	1.48
UK	0.29	Myanmar	0.61	Saudi Arabia	1.54
Austria	0.31	Bangladesh	0.63	Indonesia	1.56
Ireland	0.32	Canada	0.63	India	1.73
Finland	0.37	Taiwan	0.63	South Africa	1.84
Italy	0.37	Philippines	0.65	Vietnam	1.85
Germany	0.38	South Korea	0.67	Bulgaria	2.49
Netherlands	0.40	Croatia	0.69	China	2.50
Belgium	0.41	Turkey	0.70	Iran	3.15
Brazil	0.43	Lithuania	0.71	Russia	3.71
Spain	0.43	Nigeria	0.71	Ukraine	5.79
Colombia	0.45	Australia	0.77	North Korea	5.97
<b>World</b>					<b>0.73</b>

Source: IEA



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