



Global Environmental Policy

<http://sunshine.naoe.t.u-tokyo.ac.jp/jun/kougi/gep/gep.html>

13, April, 2004
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- ✓ How to make a policy ?
- ✓ Outline of this lecture series.
- ✓ How to read statistics data ?
 - ✓ Long-term viewpoint
 - ✓ Suspect an interpretation and the data itself !
- ✓ Quiz

HOW TO MAKE A POLICY ?



- Step1: Information gathering Council, etc.
 - Global and individual problem
 - Related statistics
- Step2: Policy decision Government
 - Vision (ideal target) decision
 - Examination of the realization method
 - Bottom-up approach; Industry respect type
 - Top-down approach; Target achievement by innovation or integration
 - How to execute and what cost effectiveness is expected?
 - Law creation, administrative guidance, etc.
 - Budget application (Control by the subsidy and the taxation system)
 - Reconsideration of a realizable vision

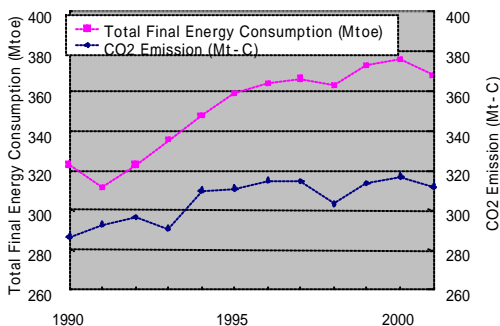
Total Primary Energy Supply and Final Energy Consumption

Statistics of 2000 by EDMC2003		World	OECD	Non-OECD	Japan	USA	China	India
Population	Million	6,027	1,125	4,901	127	282	1,262	1,016
GDP	1995 USG\$	34,199	27,675	6,525	5,688	9,009	1,040	482
CO2 Emission	Mt-C	6,422	3,470	2,952	328	1,580	881	266
Total Primary Energy Supply	Mtoe	9,043	5,317	3,726	525	2,300	928	300
	%	149.8	147.2	153.7	151.3	153.4	166.0	181.8
Total Final Energy Consumption	Mtoe	6,035	3,612	2,424	347	1,499	559	165
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Industrial Sector	Mtoe	2,088	1,087	1,004	137	360	311	70
	%	34.6	30.1	41.4	39.6	24.0	55.6	42.6
Transportation Sector	Mtoe	1,780	1,221	560	94	610	74	44
	%	29.5	33.8	23.1	27.1	40.7	13.3	26.8
Other (Residential, Commercial, Agriculture, etc.) Sectors	Mtoe	1,986	1,188	795	106	474	153	46
	%	32.9	32.9	32.8	30.5	31.6	27.4	27.7
Non-energy use	Mtoe	184	117	67	10	56	22	5
	%	3.0	3.2	2.8	2.8	3.7	3.9	3.1

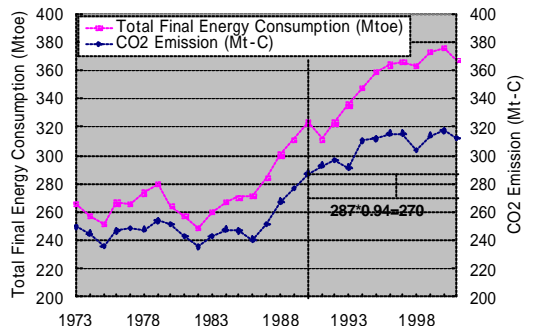
2000's world statistics rearranged by per population Source: EDMC2003

		World	OECD	Non-OECD	Japan	USA	China	India
Population	Million	6,027	1,125	4,901	127	282	1,262	1,016
GDP	1995US\$ /person	5,674	24,600	1,331	44,787	31,947	824	474
CO2 Emission	t-C /person	1.07	3.08	0.60	2.58	5.60	0.70	0.26
Total Primary Energy Supply	toe /person	1.50	4.73	0.76	4.13	8.16	0.74	0.30
Total Final Energy Consumption	toe /person	1.00	3.21	0.49	2.73	5.32	0.44	0.16
Industrial Sector	toe /person	0.35	0.97	0.20	1.08	1.28	0.25	0.07
Transportation Sector	toe /person	0.30	1.09	0.11	0.74	2.16	0.06	0.04
Other (Residential, Commercial, Agriculture, etc.) Sectors	toe /person	0.33	1.06	0.16	0.83	1.68	0.12	0.04

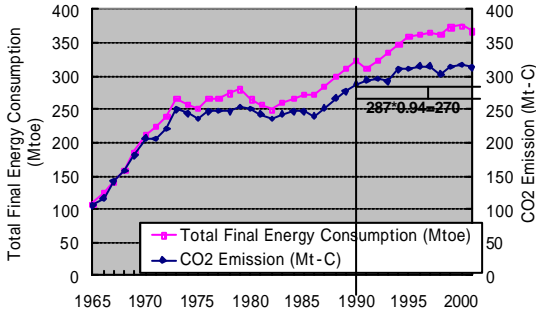
Japanese TFC and CO2 Emission (1990-2001)



Japanese TFC and CO2 Emission (1973-2001)

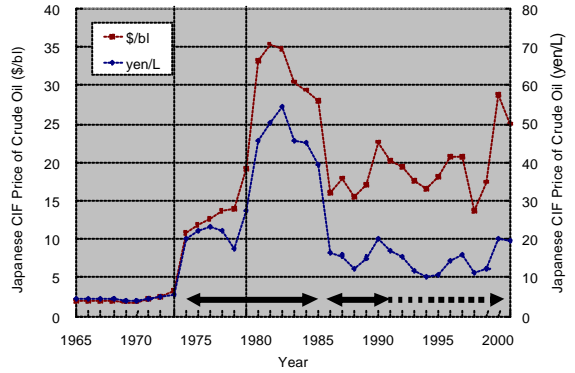


Japanese TFC and CO2 Emission (1965-2001)

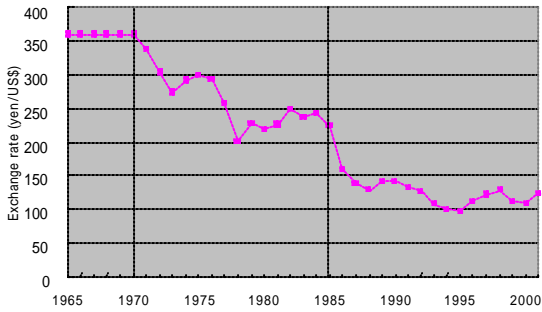


Japanese CIF Price of Crude Oil

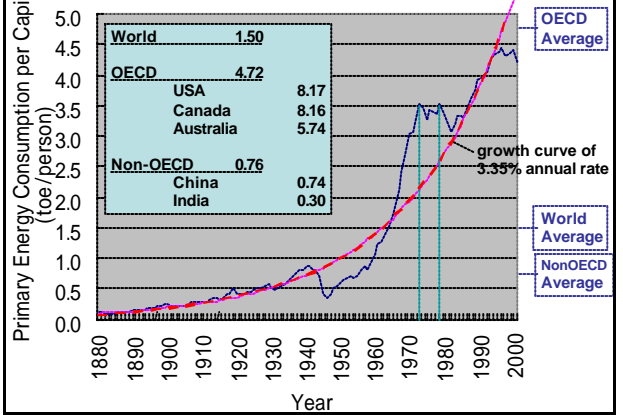
CIF: Cost + Insurance + Freight



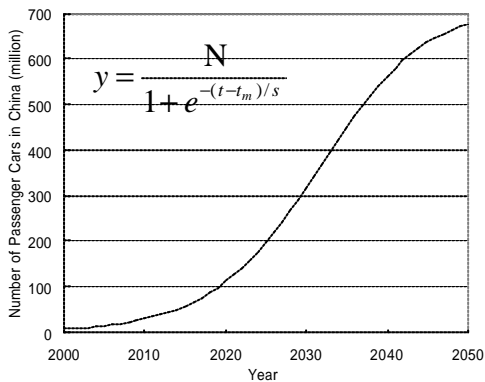
Exchange Rate (yen/US\$)



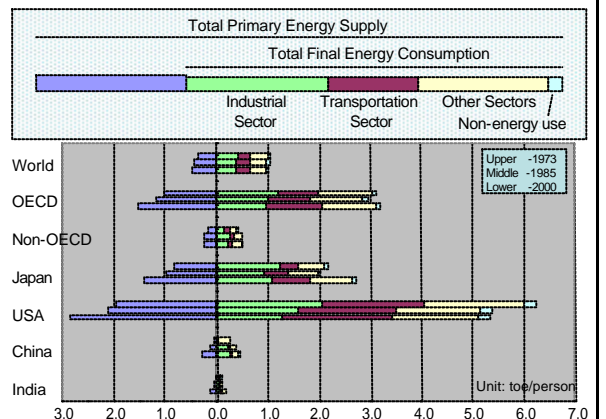
Primary Energy Consumption per Capita (toe/person)



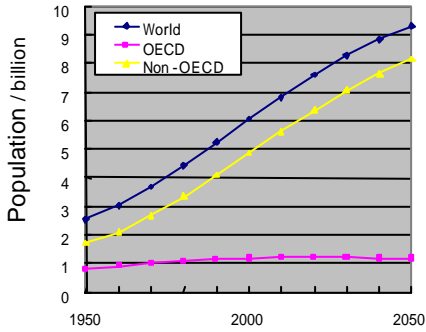
Logistic Function



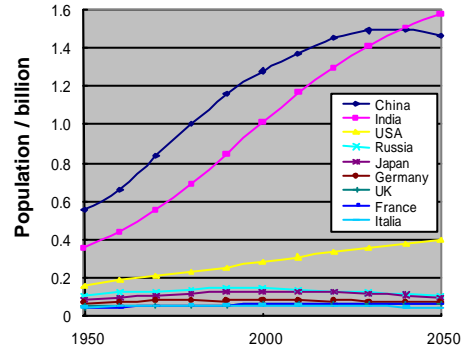
Total final energy consumption per capita (toe/person)



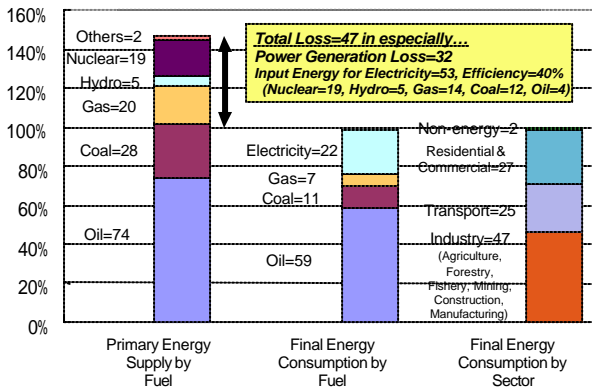
Transition of the population in the world Source: UN



Transition of the population in the world Source: UN



Japanese Energy Balance on 2001 (Source EDMC2003)



Sectoral shares of the world total final energy consumption (Unit: %)

