


A decorative graphic featuring a central light green rectangular area with a gradient. This area is surrounded by intricate, swirling green vines and leaves. Small, five-petaled flowers are scattered throughout the vine structure. The overall design is elegant and nature-themed.

# **VI. ENVIRONMENTAL ISSUES**



# **Sustainable and Green Consumption is needed**

- social and environmental responsibility
- a more balanced & enlightened consumption
- consumption as political action
- recycling
- using alternative forms of market, eg. Coop, farmers' market, local shops, fair trade shops

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- Automobiles : 10.1 million(1997)→ 15.9 million(2006) → 18.6(2012)
  - *According to SIC(State Information Center), number of cars in China was 63 million and expected to increase to 75 million next year, which eventually will increase to 490 million in the future. (US currently 250 million)*
  - Air pollution

## Most Polluted World Cities by PM10 (particulate matter)

$\mu\text{g}/\text{m}^3$ (2004)	City
169	Cairo, Egypt
150	Delhi, India
128	Calcutta, India
125	Tianjin, China
123	Chonggin, China
109	Kanpur, India
109	Lucknow, India
104	Jakarta, Indonesia
101	Shenyang, China

**Cf. Seoul  $58 \mu\text{g}/\text{m}^3$ , New York  $22 \mu\text{g}/\text{m}^3$ , London  $27 \mu\text{g}/\text{m}^3$ , Tokyo  $32 \mu\text{g}/\text{m}^3$**   
microgram (one-millionth of a gram) per cubic meter air

Source : Ministry of Environment

# Air Pollution in Major Cities in Korea

	PM10( $70\mu\text{g}/\text{m}^3$ /year)		NO <sub>2</sub> (0.05ppm/year)		SO <sub>2</sub> (0.02ppm/year)	
	'04	'05	'04	'05	'04	'05
Seoul	61	58	0.037	0.034	0.005	0.005
Inchon	62	61	0.028	0.025	0.007	0.007
Pusan	60	58	0.024	0.023	0.007	0.006
Taegu	58	55	0.026	0.023	0.006	0.006
Kwangju	46	49	0.019	0.021	0.004	0.004
Daejon	49	48	0.022	0.020	0.005	0.005
Woolsan	50	50	0.022	0.024	0.010	0.008

Source : Ministry of Environment



# Air Pollution

- Health Effects

Difficulty in breathing: wheezing & coughing

Increased possibility of heart attacks

Asthma

Bronchitis

Lung cancer



# Air Pollution

## **Anthropogenic sources** of Air Pollution

(mostly from burning fuels)

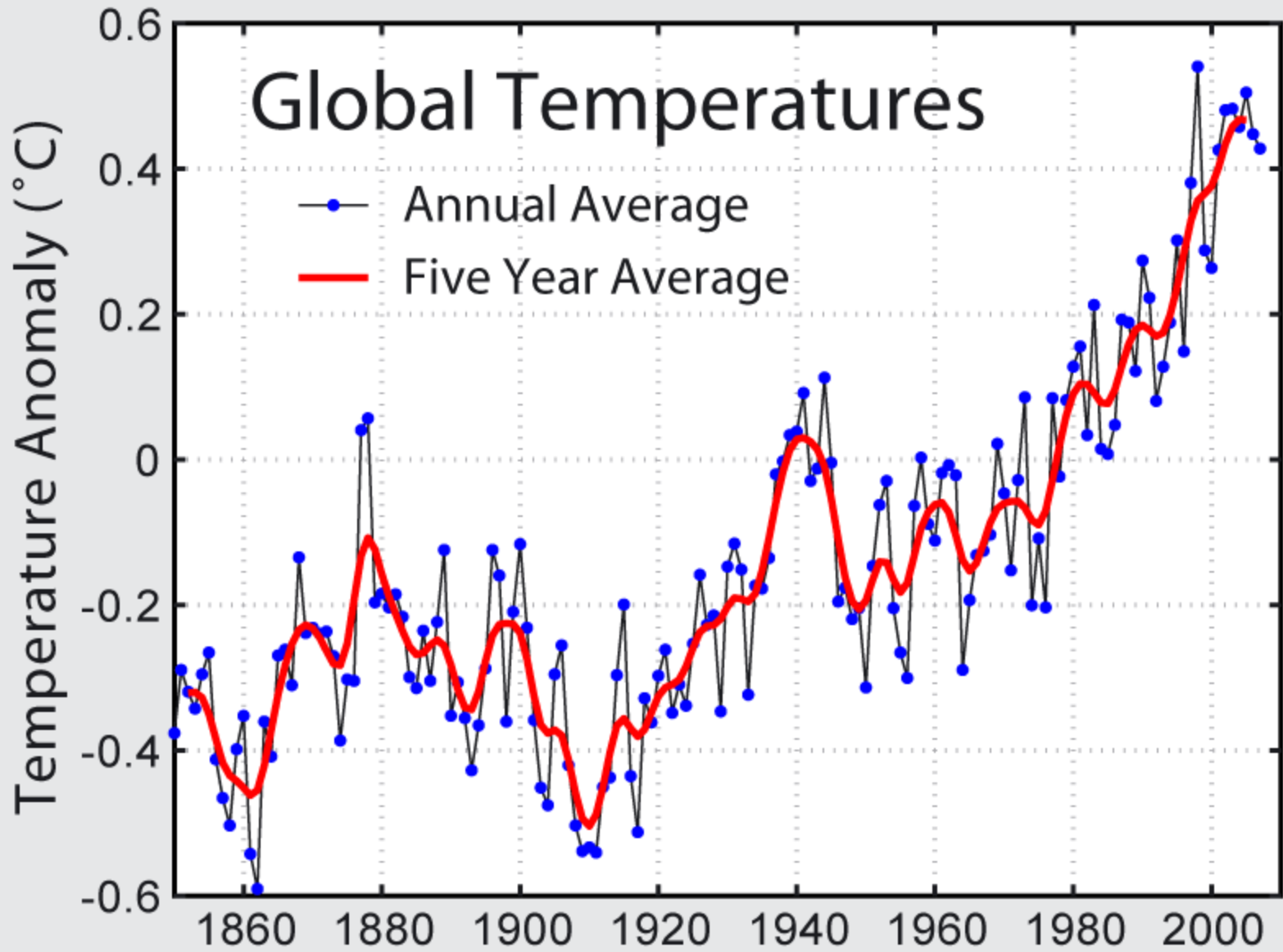
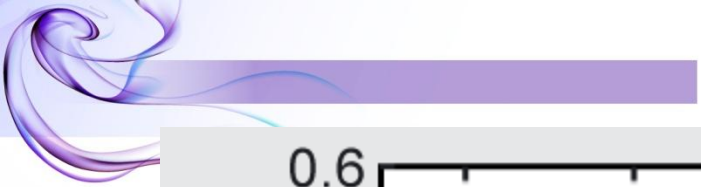
- "Stationary Sources"  
power plants, manufacturing facilities, heaters,  
municipal waste incinerators
- "Mobile Sources"  
motor vehicles, aircraft, vessels etc.
- Fumes from hair spray, paint, aerosol sprays



# Air pollution and Global Warming

- **CO<sub>2</sub>** emission from fossil fuel
- Most important greenhouse gas (GHG)
- 88.4% of total GHG emissions in Korea
- Ranked #10 in the world in energy related CO<sub>2</sub> emission
- Per capita energy consumption: 4.43 TOE
- Cf. Japan 4.18; UK 3.91; Germany 4.22

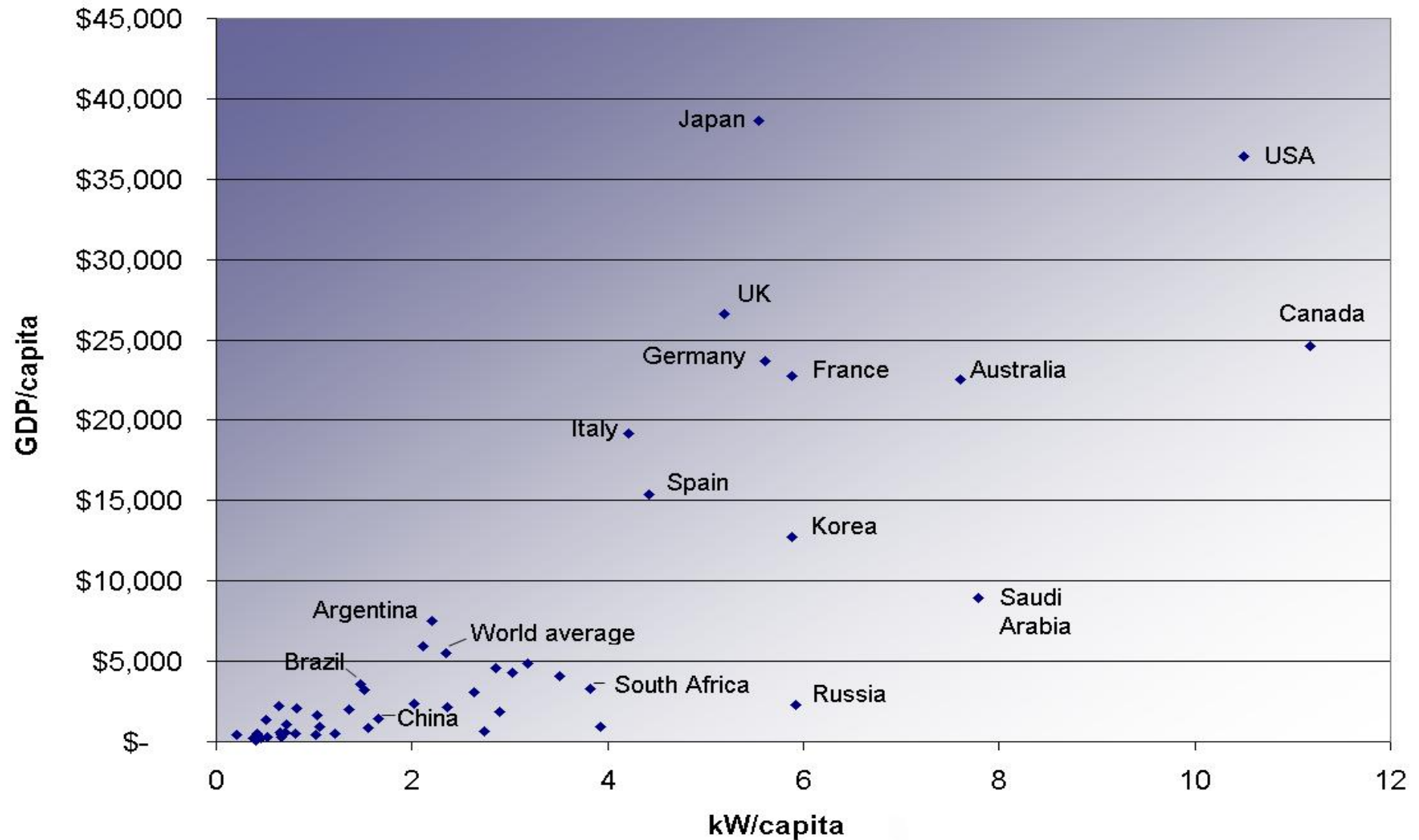




Source : UNCED

# Economic Development and Energy Consumption (2005)

Source : OECD





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Is nuclear energy an alternative?

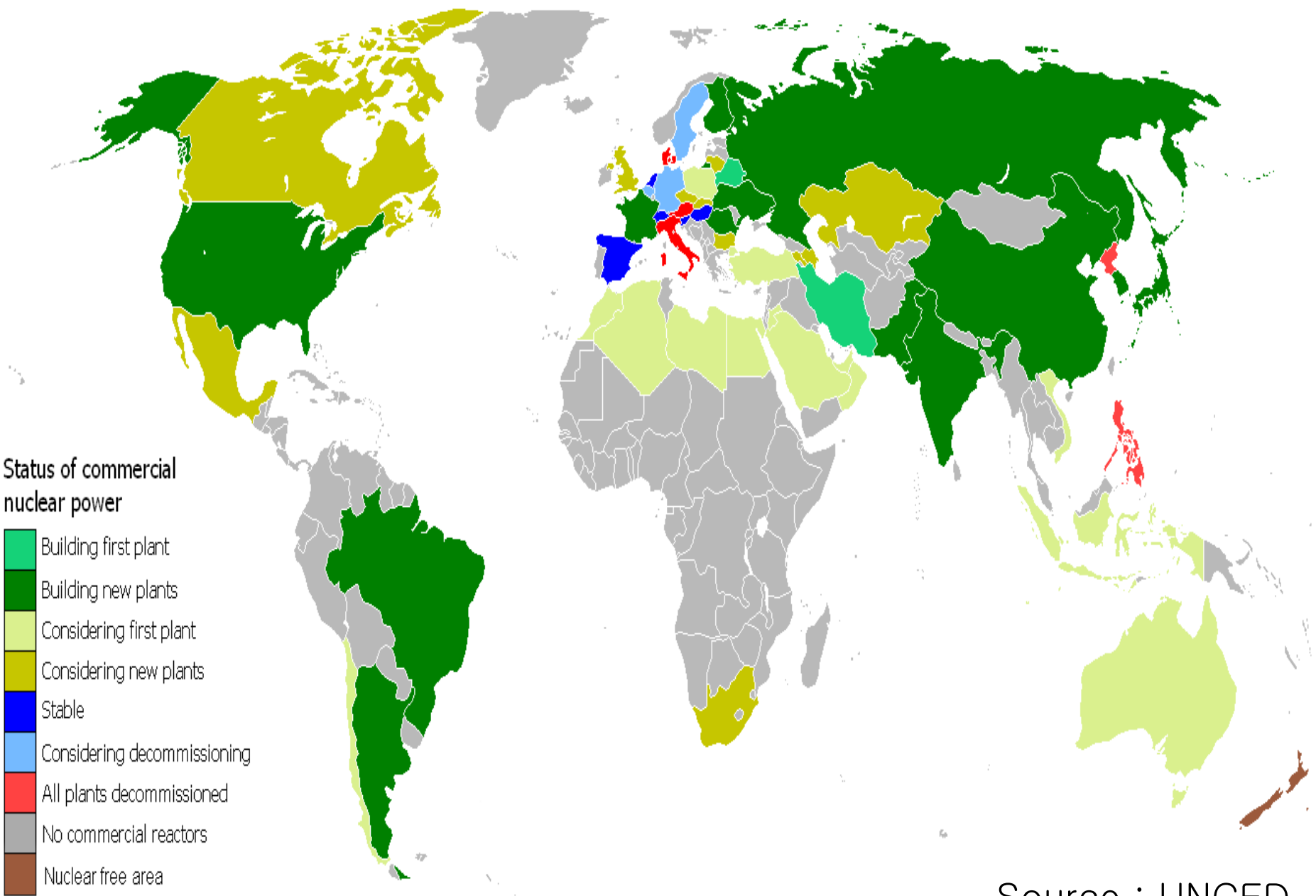
# Nuclear Power Plants in Korea

20 reactors running

● 건설중 ● 가동중 ● 건설준비



Source : Korea Hydro & Nuclear Power Co., LTD



Source : UNCED

## Top 10 Nuclear Countries, 2007

rank	1	2	3	4	5	6	7	8	9	10
Total capacity (GW)	USA (98)	FRANCE (63)	JAPAN (48)	RUSSIA (22)	Germany (20)	Korea (17)	Ukraine (13)	Canada (13)	U.K. (12)	Sweden (9)
Share of Nuke (%)	France (79)	Ukraine (48)	Sweden (46)	Korea (38)	Japan (28)	Germany (26)	U.K (20)	USA (19)	Russia (16)	Canada (15)
kW/ha*	Korea (9.93)	Japan (1.73)	Germany (0.49)	U.K (0.37)	France (0.36)	Sweden (0.32)	Ukraine (0.21)	Canada (0.05)	USA (0.02)	Russia (0.01)

\* = per hectare nuke capacity

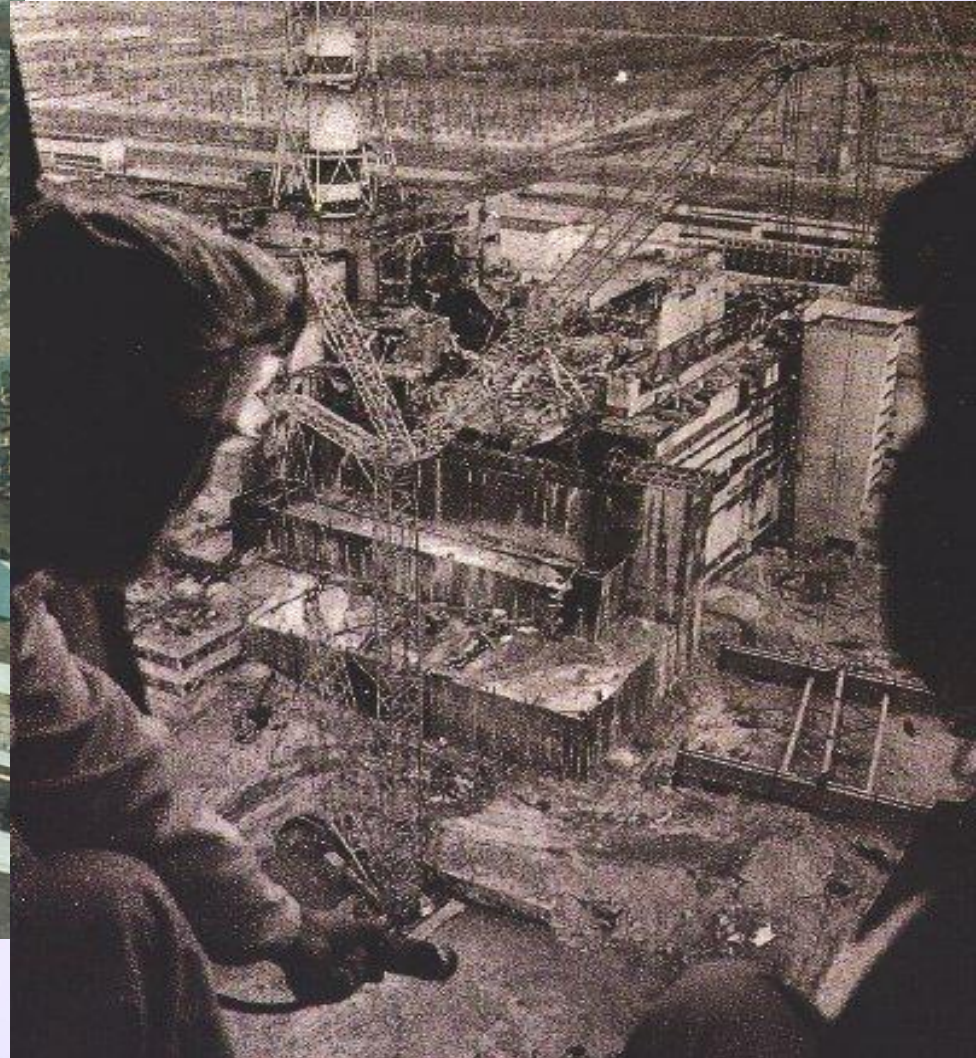
Source : UNCED

# The Production & Consumption of Electricity by Region

region	Production (MWh)	Consumption (MWh)	region	Production (MWh)	Consumption (MWh)
Seoul	1,194,925	33,321,290	Kyungbook	54,153,056	24,805,745
Pusan	25,831,181	13,423,022	Kyungnam	47,437,056	35,991,181
Taegu	123,167	10,544,475	Choongbuk	516,389	11,647,860
Inchon	17,361,329	14,963,884	Choongnam	59,932,954	13,835,150
Kwangjoo	-	4,639,098	Chonbuk	1,196,254	11,247,612
Daejon	208,305	5,771,636	Chonnam	38,490,256	15,653,923
Kyunggi	20,307,328	48,583,252	Jeju	1,385,093	1,955,071
Kangwon	5,379,389	10,227,934	Total	285,223,756	257,731,354

Source : Statistics Korea

# Chernobyl disaster



Source : <http://yupspd.blog.me/10034475297>



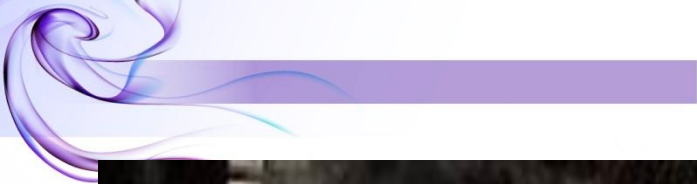


Source : <http://www.nytimes.com/>

# Fukushima Explosion



Source : <http://www.greenpeace.org/>



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Source : <http://www.greenpeace.org/>



- We need to consider more sustainable energy!
- What are the alternatives?

A decorative graphic featuring a central light green rectangular box with a gradient. The box is surrounded by intricate, swirling green vines, leaves, and small flowers. The vines are thin and elegant, creating a delicate frame around the central text area.

# **VII. Marriage, Family & Women**




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- Make sure you read article by Eun Ki-soo (pp.146-156)



# Attitude toward marriage

- \*1-5 points (strongly disagree, agree, neutral, agree, strongly agree)
- \*summary of survey results(quantitative; qualitative interpretation)
  - 1) “Married people are generally happier than unmarried people.”
  - 2) “It is alright for a couple to live together without intending to get married.”
  - 3) “People who want children ought to get married.”

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- “Korean family values are changing. But, when put in a global context, Korea still appears to have one of the most traditional and conservative set of family values in the world” (Eun, p.156).



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- 2) “It is alright for a couple to live together without intending to get married.”
- 3) “People who want children ought to get married.”