JAPAN'S LONG TERM ENERGY NEEDS AND STRATEGY

Resource Development Council
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Hiroaki Ishii
Minister
Embassy of Japan

A Quick Look at the US - Japan Economic Relationship

JAPAN is a top export market for the U.S.

(1) Largest export market outside NAFTA : $54.4 billion

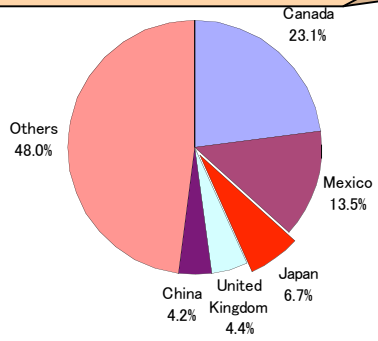
☆Japan is the largest export market outside NAFTA (Canada, Mexico).

☆2004 Exports to Japan were valued at 54.4 billion dollars (6.7% share).

Export value of selected countries

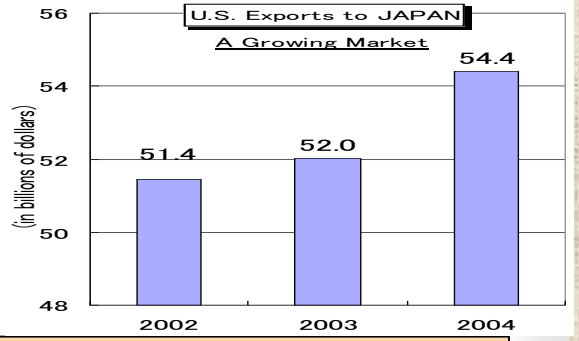
(in millions of dollars)

	Country	Value	% Share
1	Canada	189,101.3	23.1%
2	Mexico	110,775.3	13.5%
3	**Japan**	**54,400.2**	**6.7%**
4	UK	35,959.8	4.4%
5	China	34,721.0	4.2%
	Total	817,935.8	100.0%



Rank of U.S. export countries

Rank	1998	2000	2002	2004
1	Canada	Canada	Canada	Canada
2	Mexico	Mexico	Mexico	Mexico
3	**Japan**	**Japan**	**Japan**	**Japan**
4	UK	UK	UK	UK
5	Germany	Germany	Germany	China



(2) The largest Agricultural Market

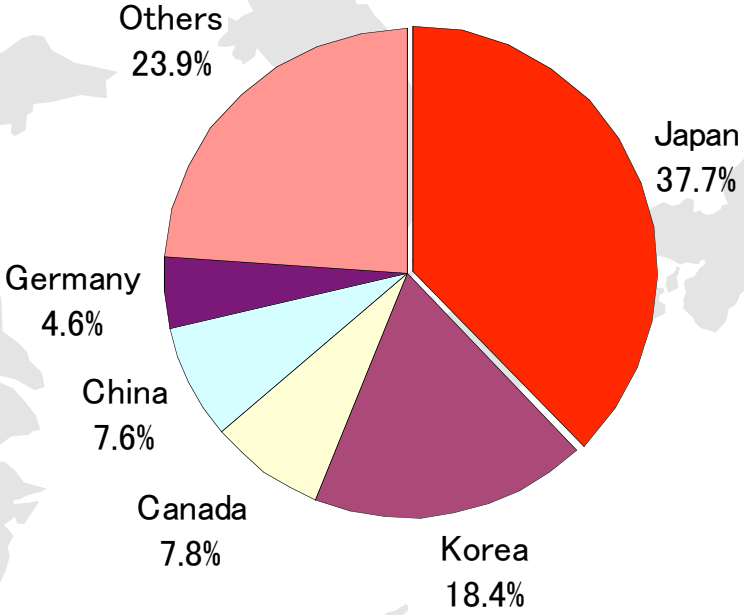
Agricultural & Livestock Products

	Country	Value	% Share
1	**Japan**	**4,911.3**	**14.4%**
2	China	4,408.8	12.9%
3	Canada	4,150.8	12.1%
4	Mexico	3,806.3	11.1%
5	Korea	1,559.4	4.6%
	Total	34,191.8	100.0%

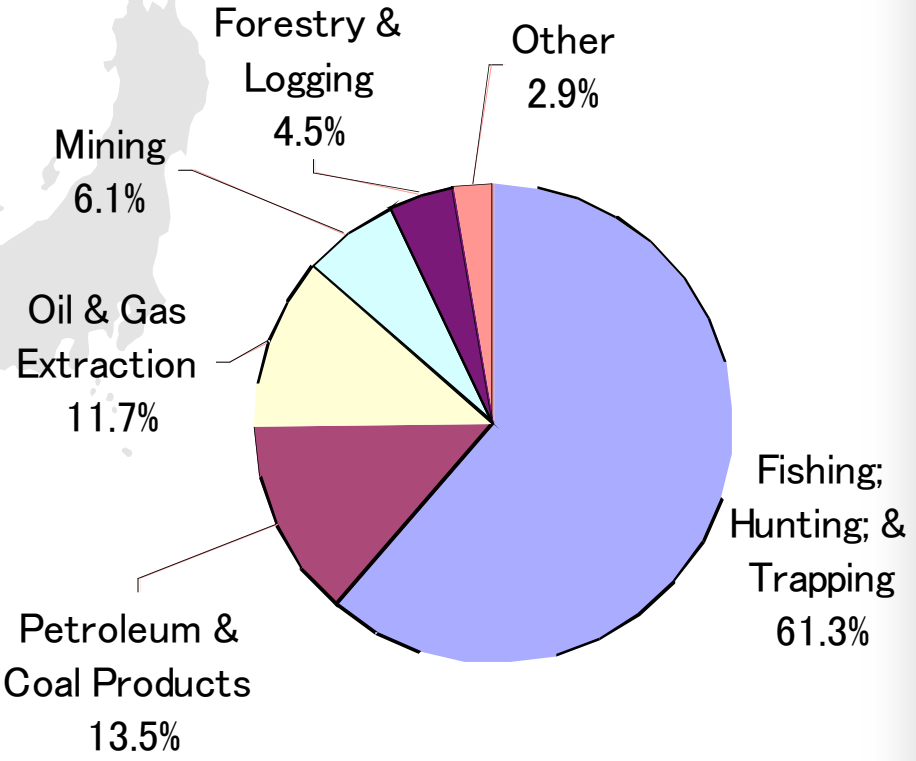
(3) 177 billion dollar investments creating 600,000 Jobs

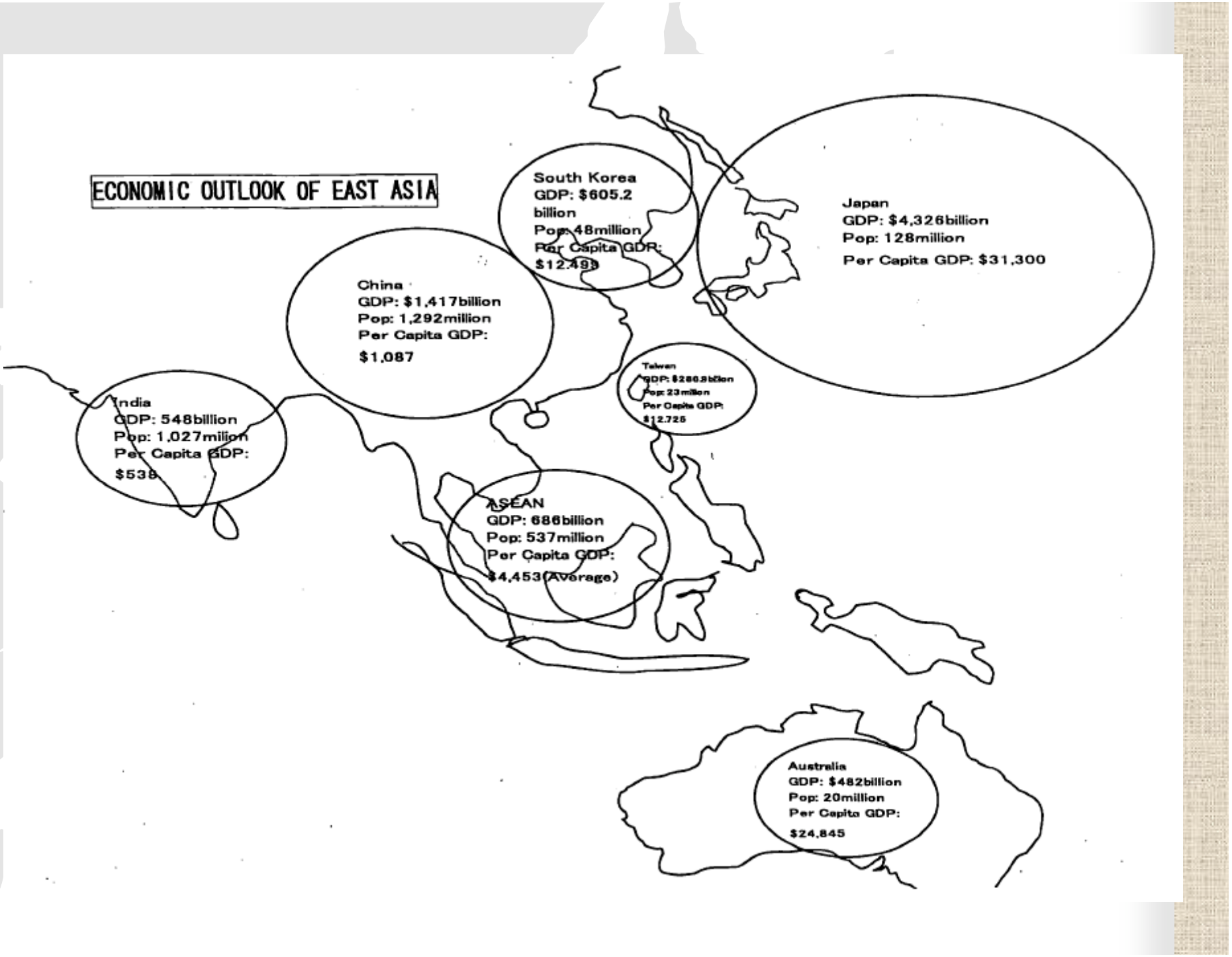
- **Japan's 177 billion dollar Investment to the U.S. creates the largest manufacturing employment among FDI in the US.**
- **The US affiliates of Japanese companies creates about 600,000 jobs.**

Japan is the largest export market to Alaska

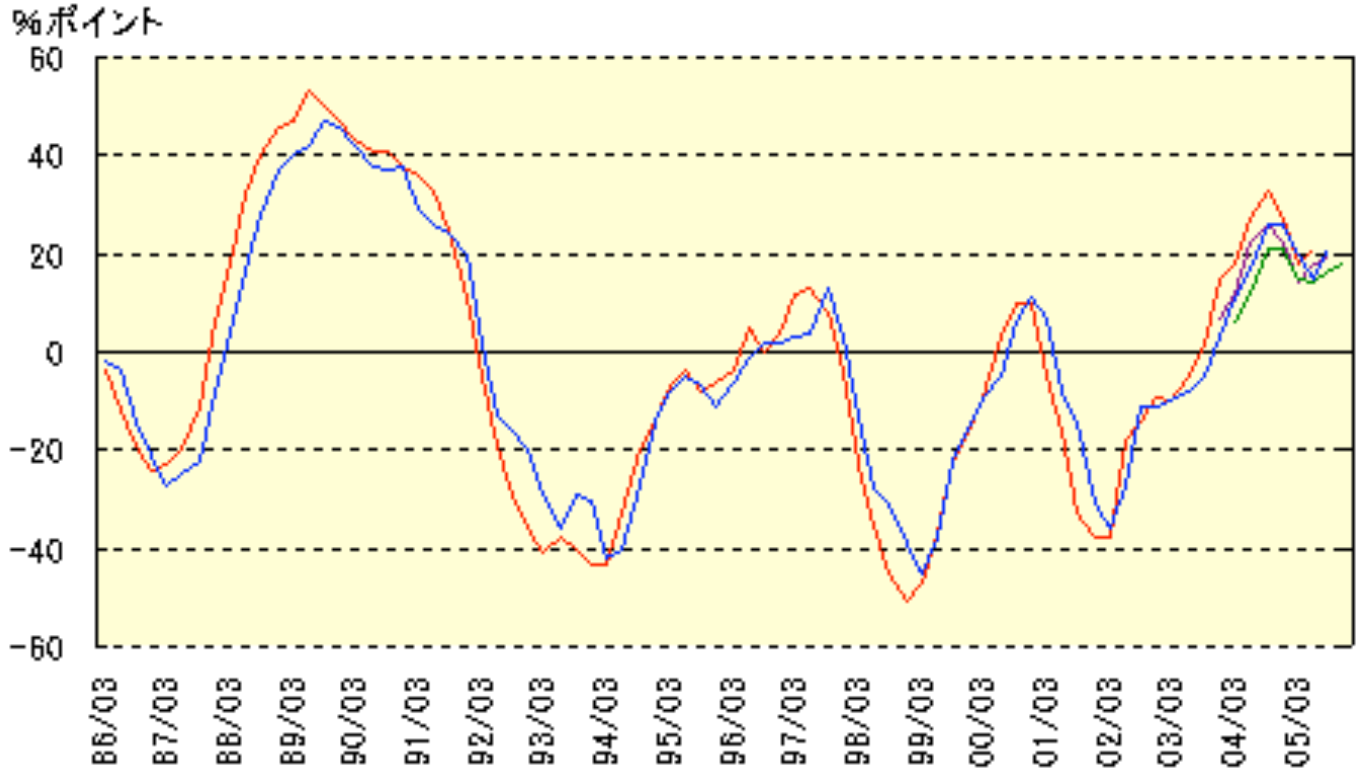


1,189.7 million dollar exports to Japan




ECONOMIC OUTLOOK OF EAST ASIA
South Korea
GDP: $605.2
billion
Pop: 48million
Per Capita GDP:
$12,493
Japan
GDP: $4,326billion
Pop: 128million
Per Capita GDP: $31,300
China
GDP: $1,417billion
Pop: 1,292million
Per Capita GDP:
$1,087
Taiwan
GDP: $286.8billion
Pop: 23million
Per Capita GDP:
$12,725
India
GDP: 548billion
Pop: 1,027milion
Per Capita GDP:
$538
ASEAN
GDP: 686billion
Pop: 537million
Per Capita GDP:
$4,453(Average)
Australia
GDP: $482billion
Pop: 20million
Per Capita GDP:
$24,845

The Japanese Economy is rebounding.

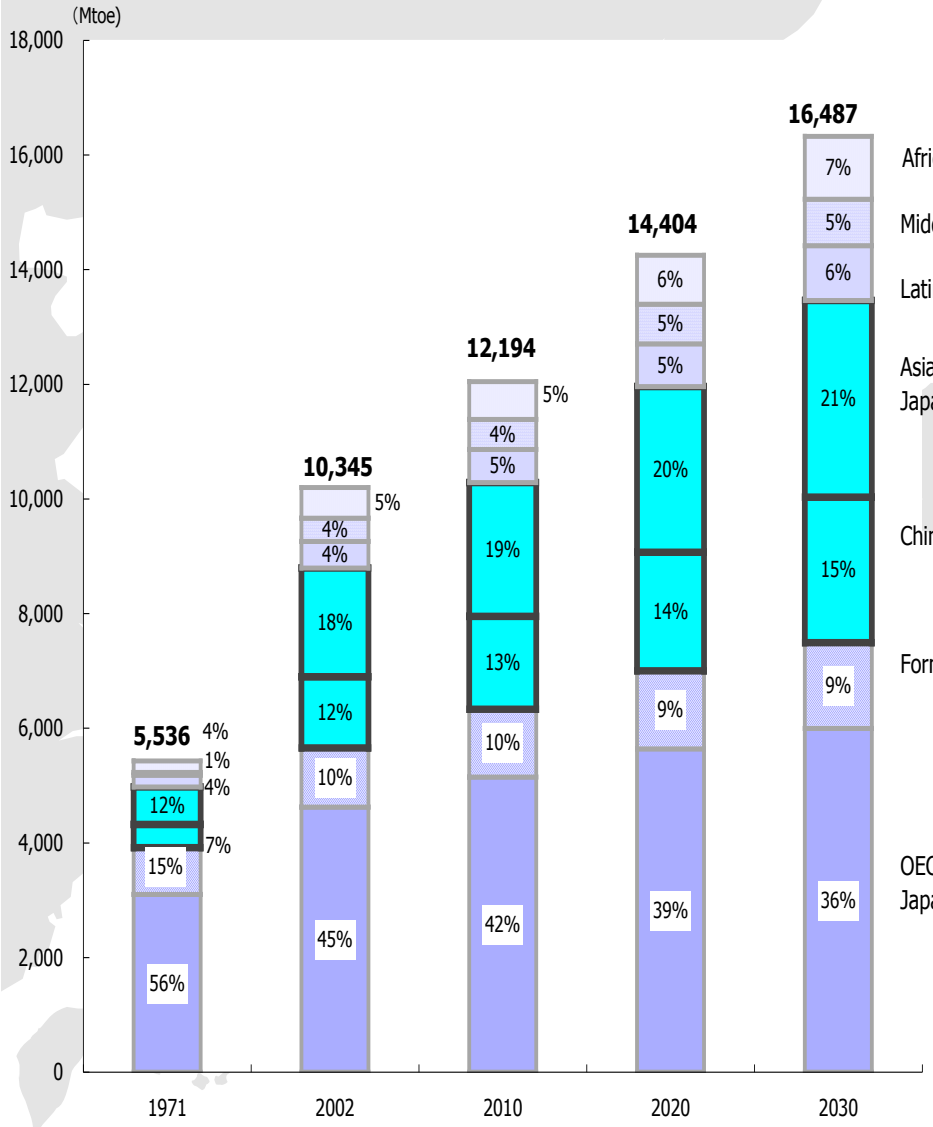


Diffusion Index; Bank of Japan

The Outlook of the Long Term Energy Supply and Demand in Japan

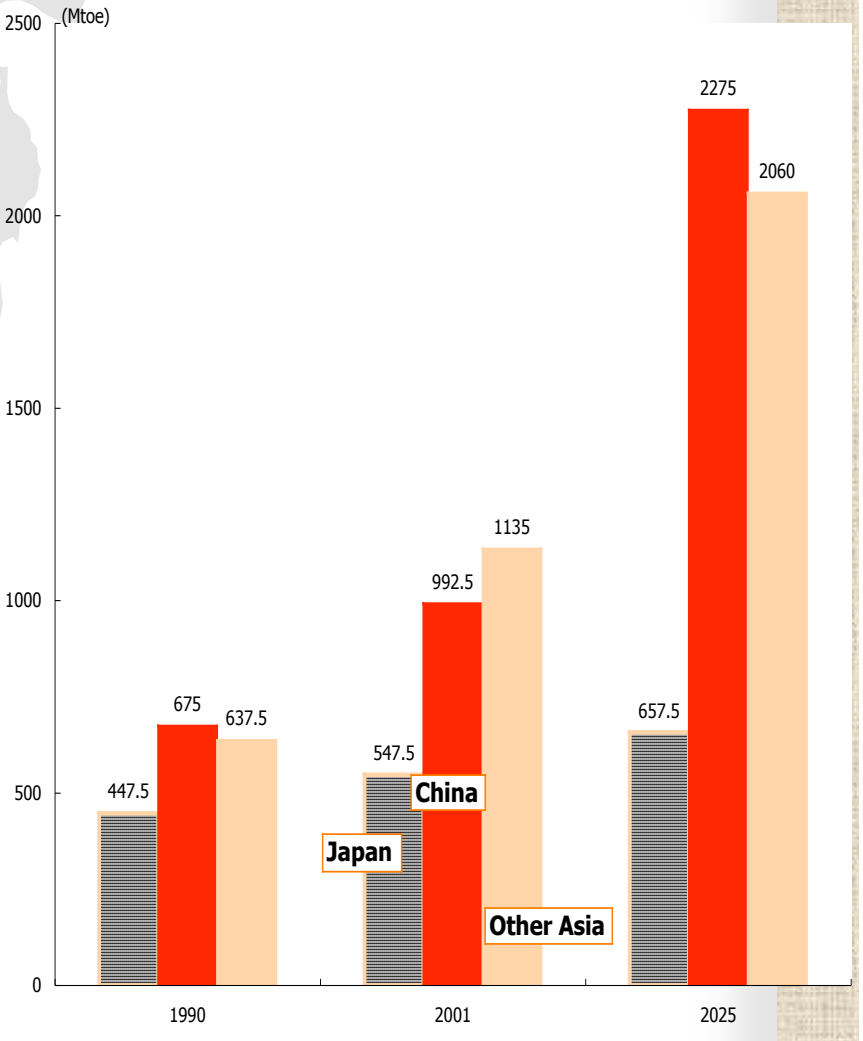
World Energy Demand Outlook

World Primary Energy Demand Outlook by Region



Source: IEA/World Energy Outlook 2004

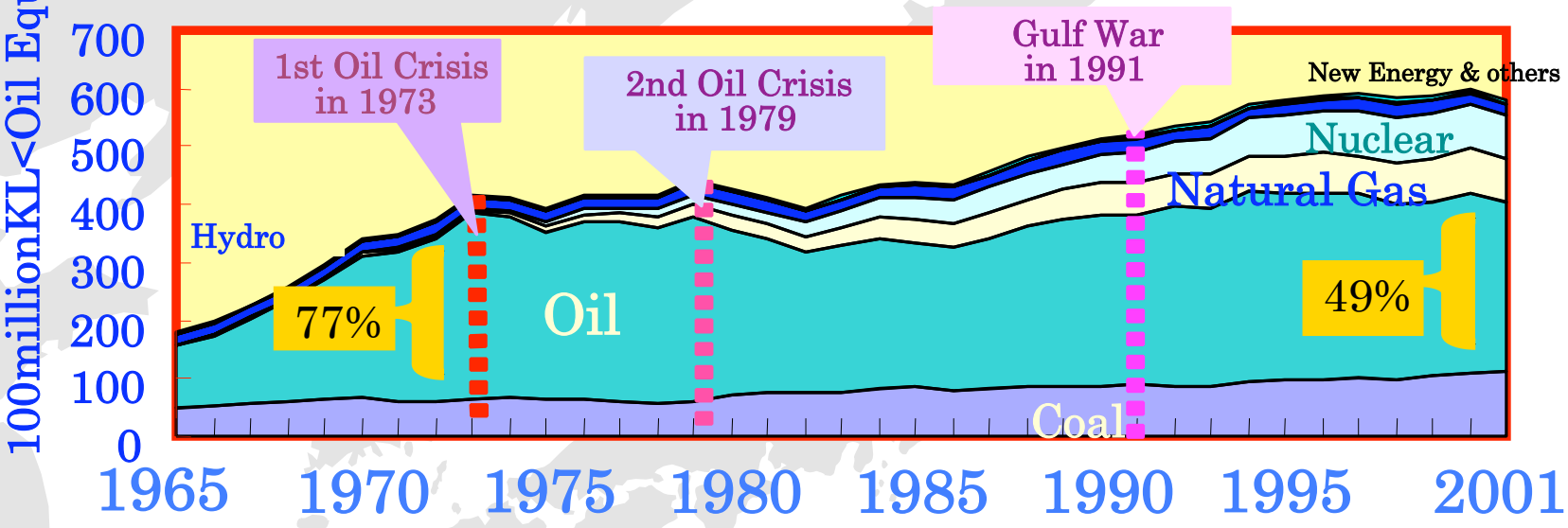
Primary Energy Demand Outlook in Asian Region



Source: DOE/EIA International Energy Outlook 2004

Trend of the Energy Supply in Japan

Primary Energy Supply in Japan



Source: METI

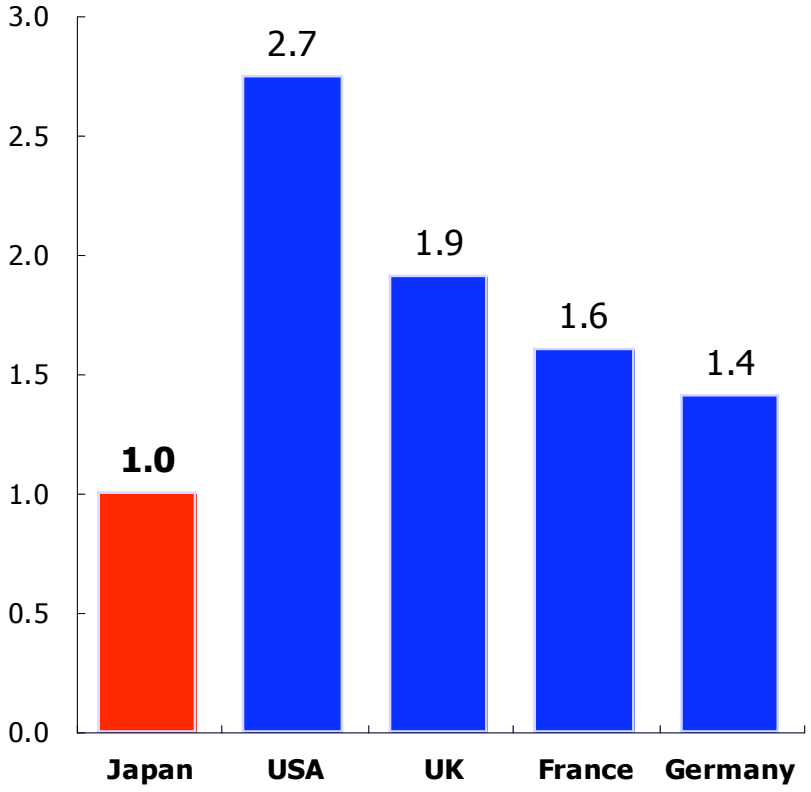
Comparison of structure of energy demand and supply with other industrialised countries (Year 2002) (%)

	Japan	USA	UK	France	Germany	Italy	EU
Dependence on Oil	49%	39%	35%	34%	37%	51%	40%
Dependence on Oil Imports	99.7%	60%	▲54%	98%	97%	94%	74%
Dependence on the Middle East	87%	23%	5%	24%	10%	30%	22%

Source :IEA

Energy Conservation

Comparison of Energy Consumption per GDP



*Energy Consumption in 2001 (kl:Oil Equivalent)/ GDP
in 2001
* Converting Japan as 1

International Comparison of Energy Consumption Rates (Japan=100)

	Japan	USA	UK	France	Germany
Steel	100	118	112	103	111
Chemicals	100	118	120		
Paper	100	161	–	–	–
Cement	100	180		110	120

Source : Subcommittee on Demand & Supply, Advisory Committee for Natural Resources and Energy, Interim Report 1998

※Chemicals shows the unit of soda industry.
※Cement shows the unit of calcination proces

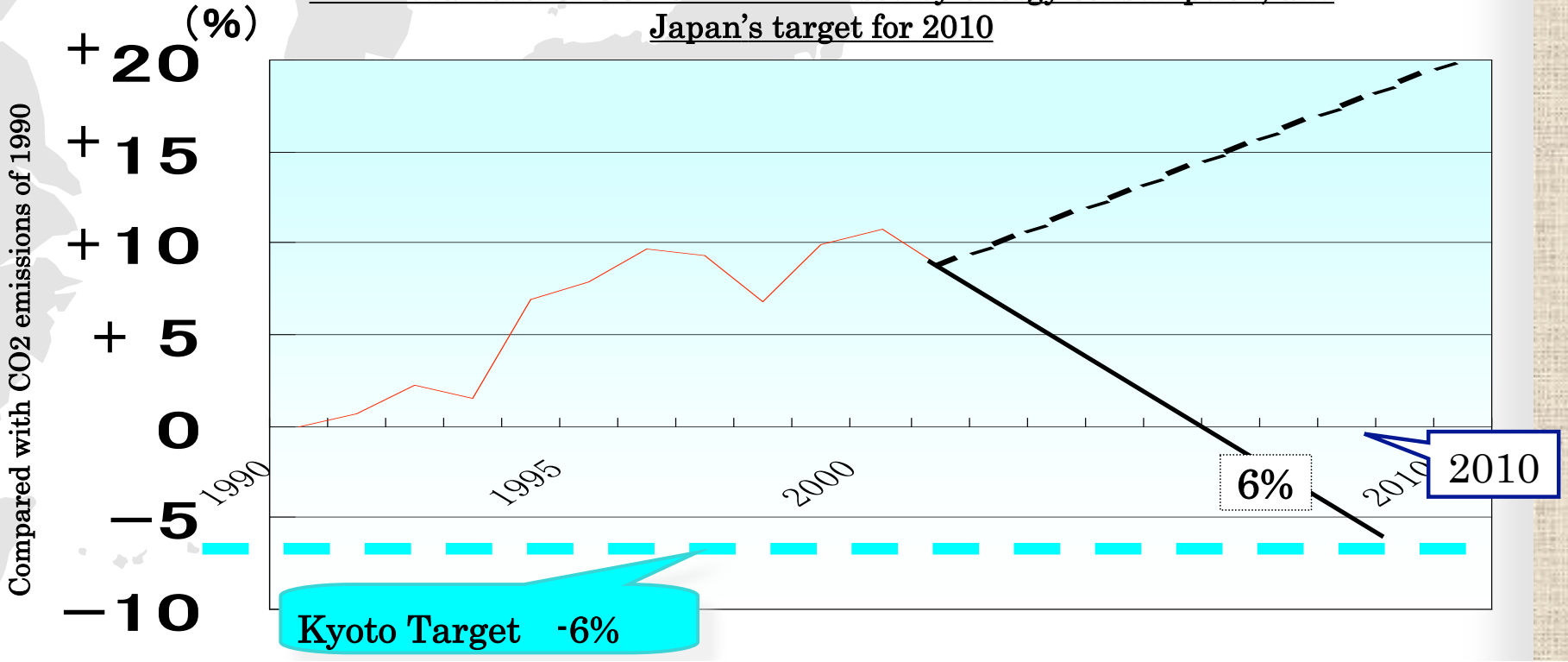
Kyoto Protocol Target

The Kyoto protocol went into effect on February 2005 following ratification by Russia.

→ The law concerning implementation of global warming countermeasures will take complete effect.

Formulate a 'legal plan for achievement of Kyoto Protocol Target' instead of the present revision of 'Guideline of Measures to Prevent Global Warming'.

The actual level of CO2 emission caused by energy consumption, and Japan's target for 2010



Changes of the Environment of Japan's Energy Policy

(1) Increasing energy demand in Asia
(2) Increased dependence on the Middle East
(3) Global environmental restraints

consistent with the Kyoto Protocol

The Japanese Government has reviewed the energy supply/demand outlook and overall energy policy from a longer perspective (up to the year 2030).

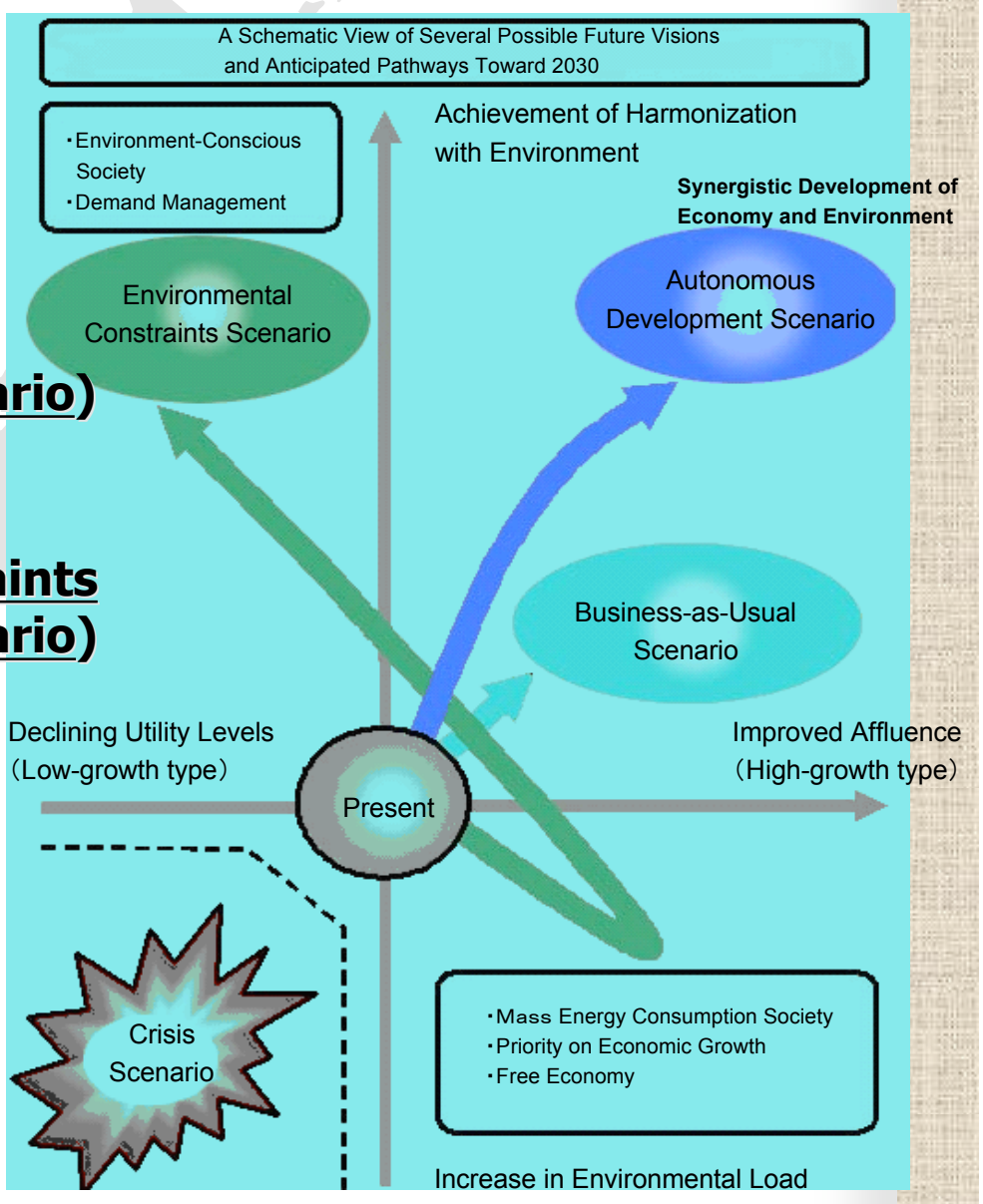
Interim Report: Visions of Several Possible Futures

1. Conceivable Pathway
(The Business-as-Usual Scenario)

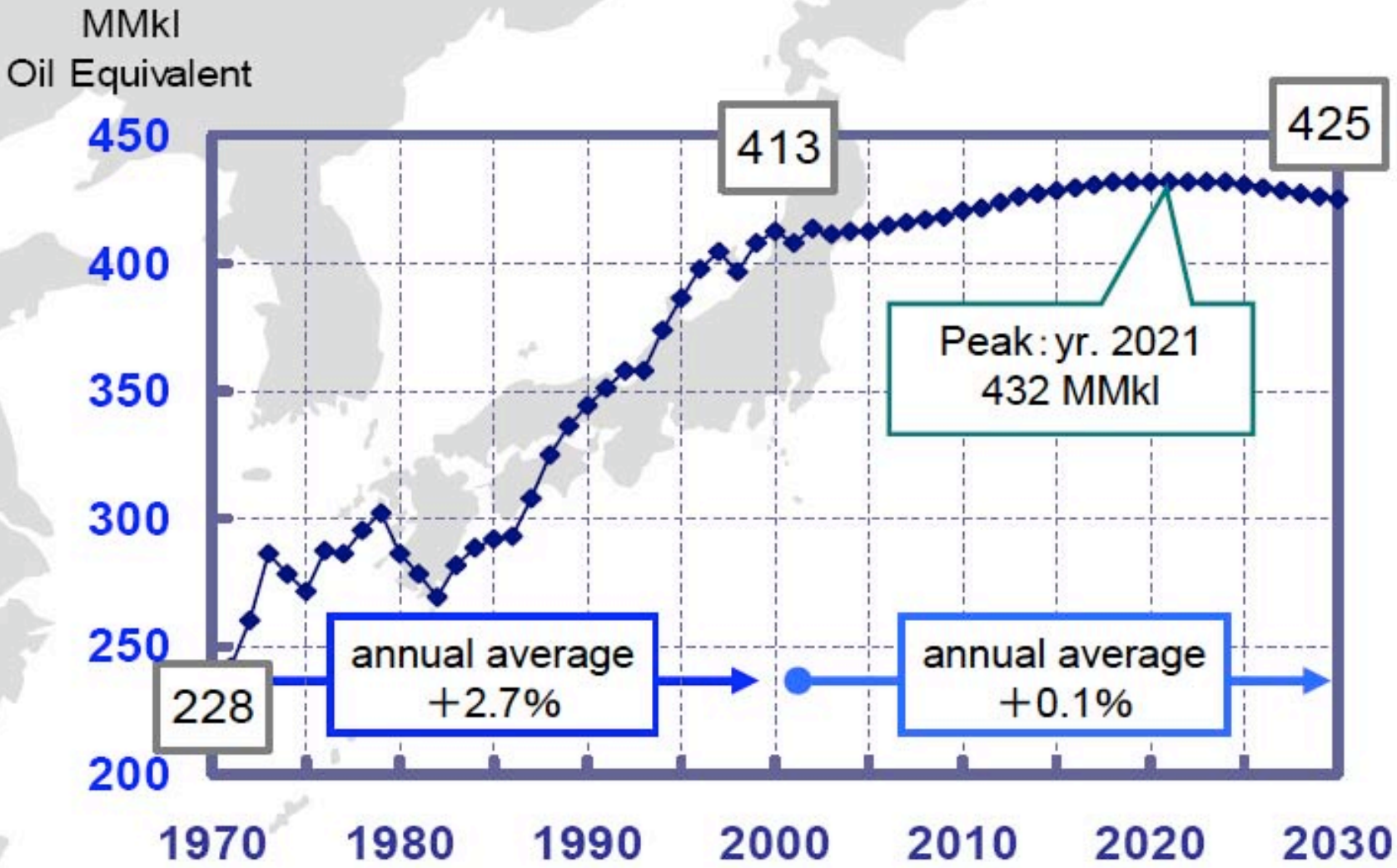
2. Technological Innovation, Environmental Consciousness
(The Autonomous Development Scenario)

3. Environmental Constraints
(The Environmental Constraints Scenario)

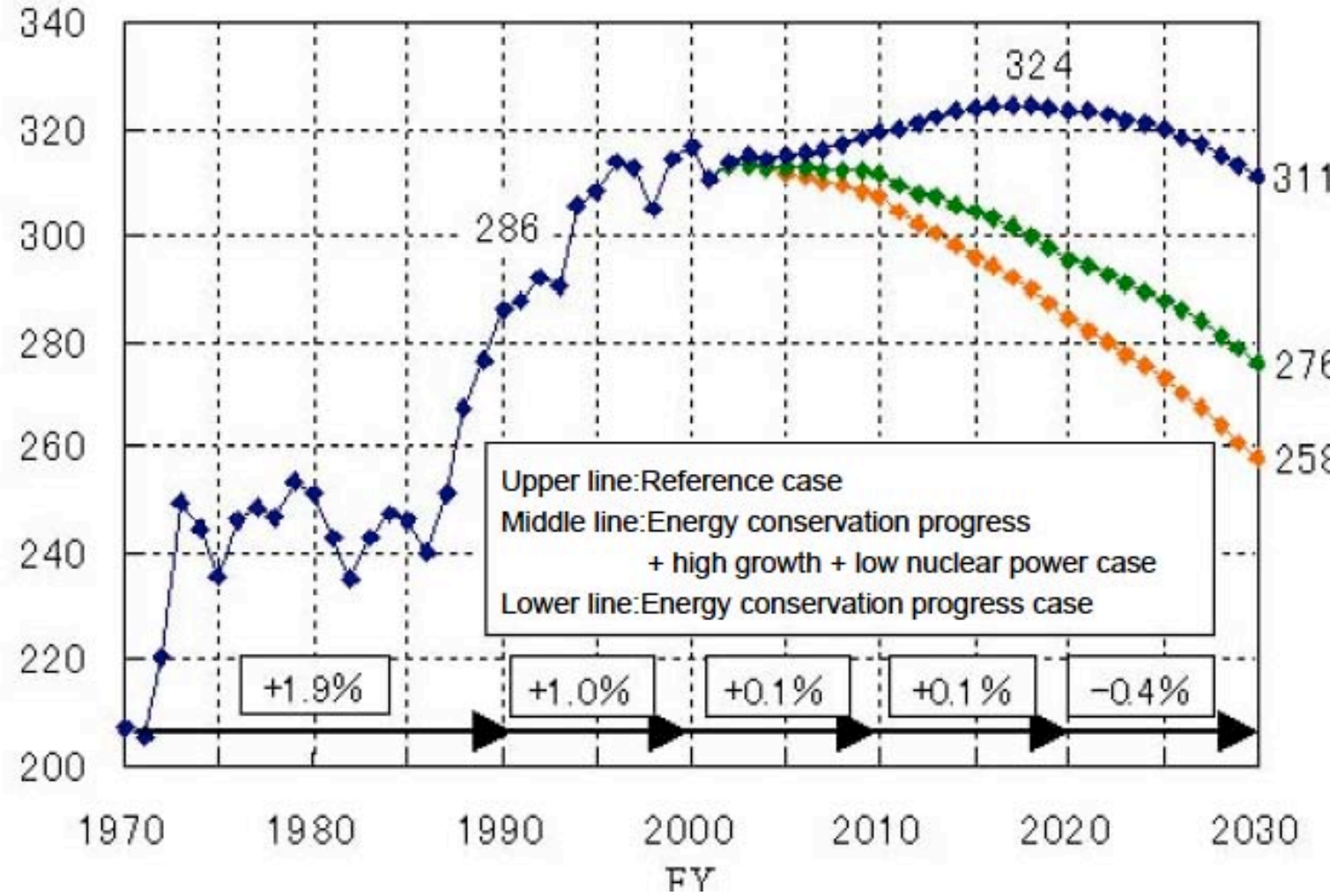
4. International Tension
(The Crisis Scenario)



Outlook of Energy Demand in Japan



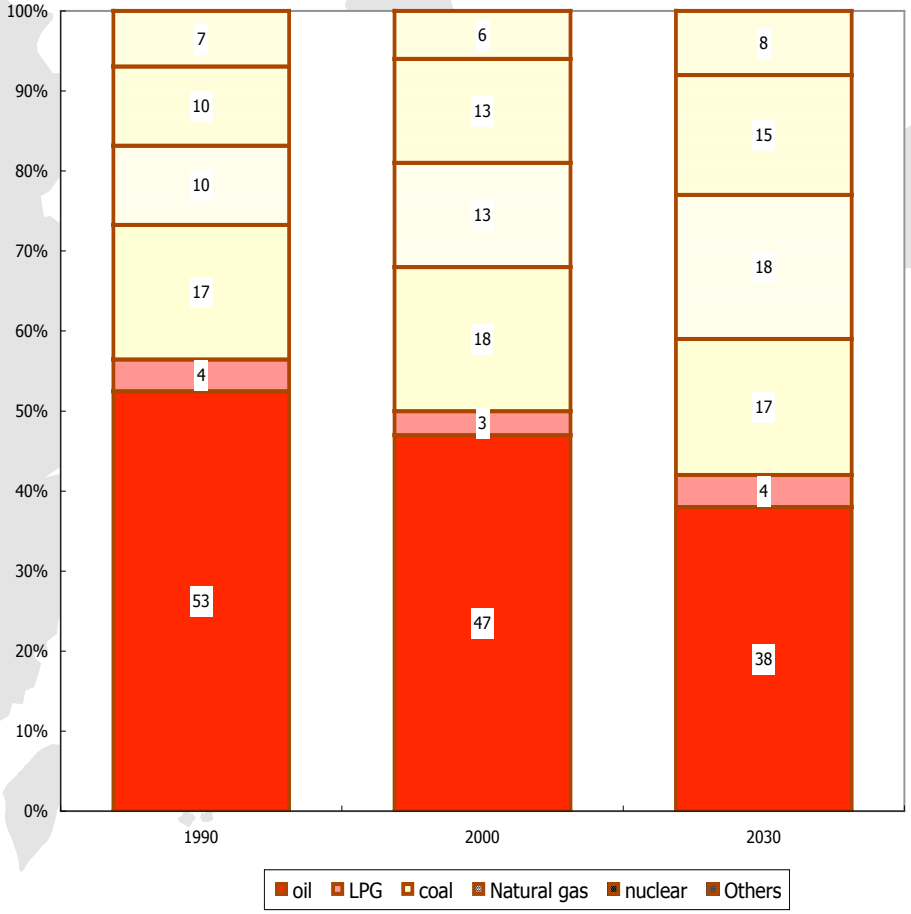
Energy Related CO2 Emissions



Structure of Energy Supply

Structure of primary energy supply

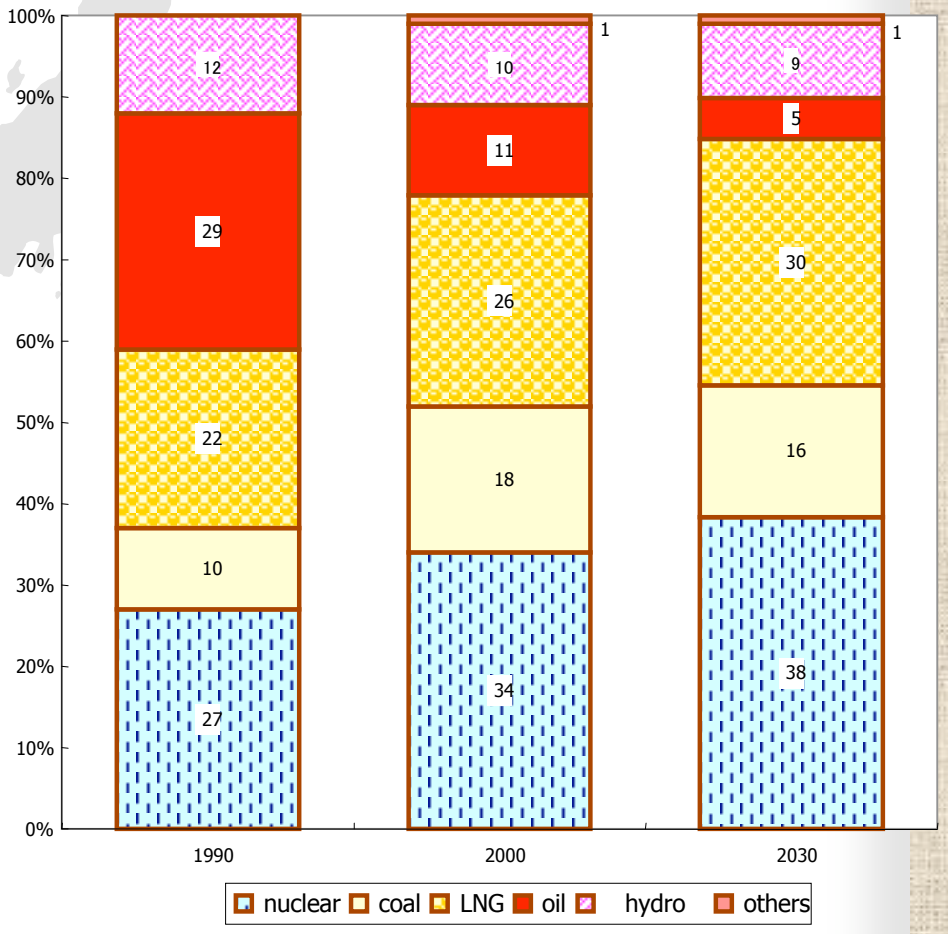
Oil, despite a decrease in share, will continue to be an important source of energy that accounts for around 40%



Structure of power generation

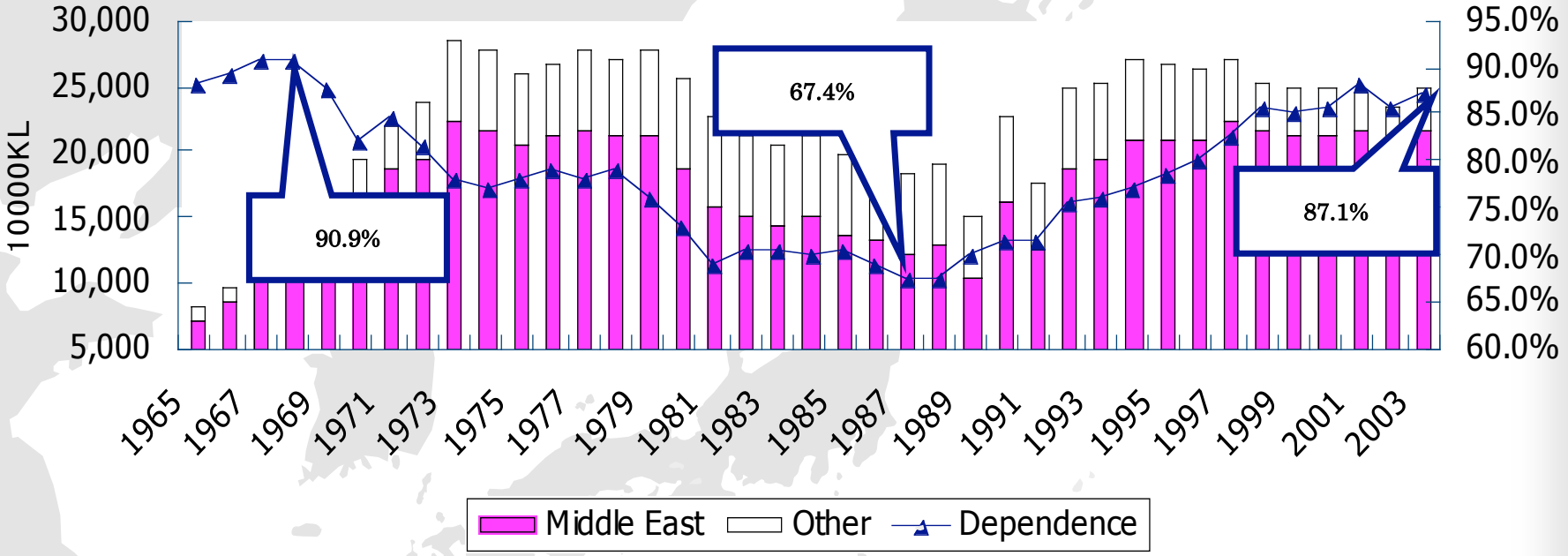
(electricity supplier)

The share of nuclear and LNG will increase substantially. On the contrary, that of oil and coal will decrease.

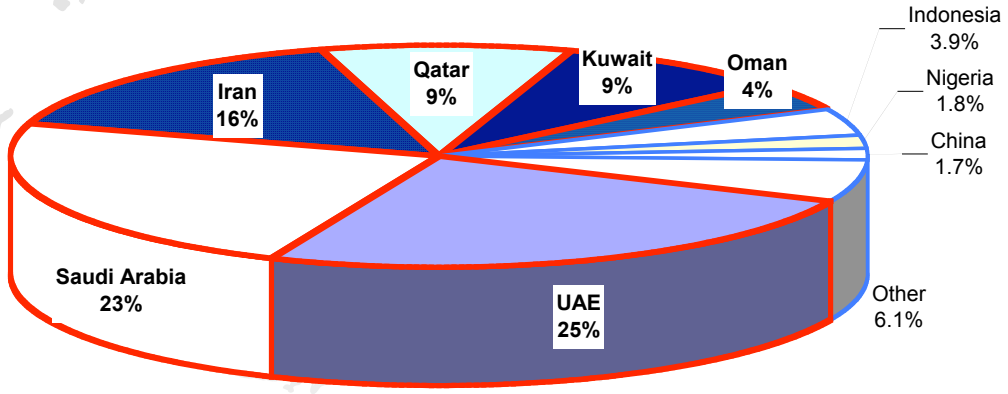


Japan's Energy Situation: Dependence on the Middle East

Dependence on Crude Oil Imports from the Middle East, 1965-2003 (%)



Japan's crude oil imports by country

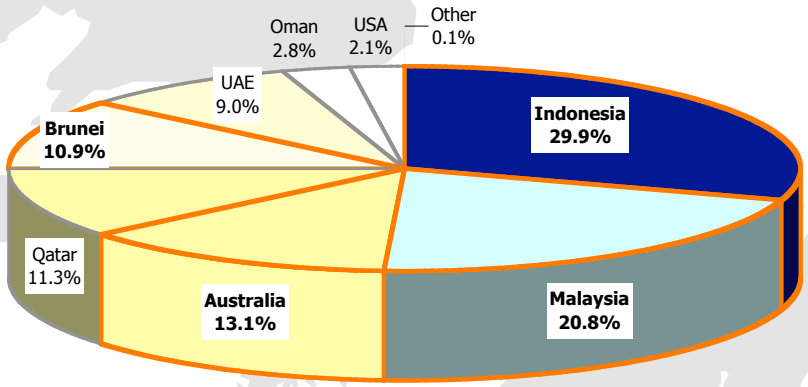


Source: METI

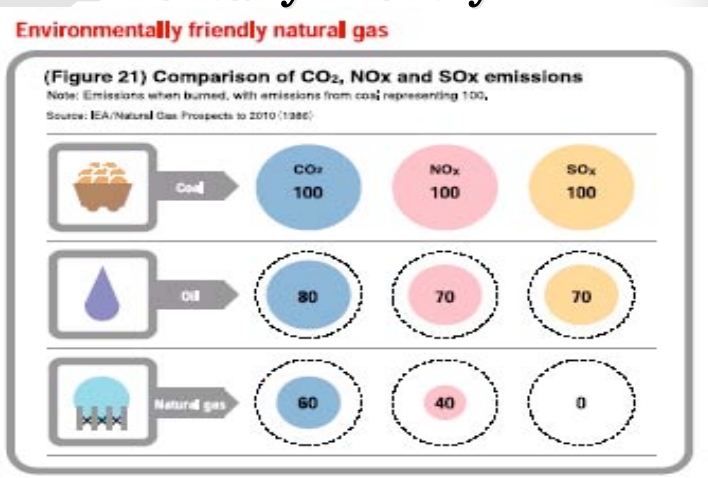
Acceleration of Shift to Natural Gas

Merits of Natural Gas

☆Stable supply source
(e.g. Asia-Pacific, etc.)



☆Environmentally friendly



☆Promising as a source of hydrogen for fuel cells and distributed generation (e.g. co-generation)

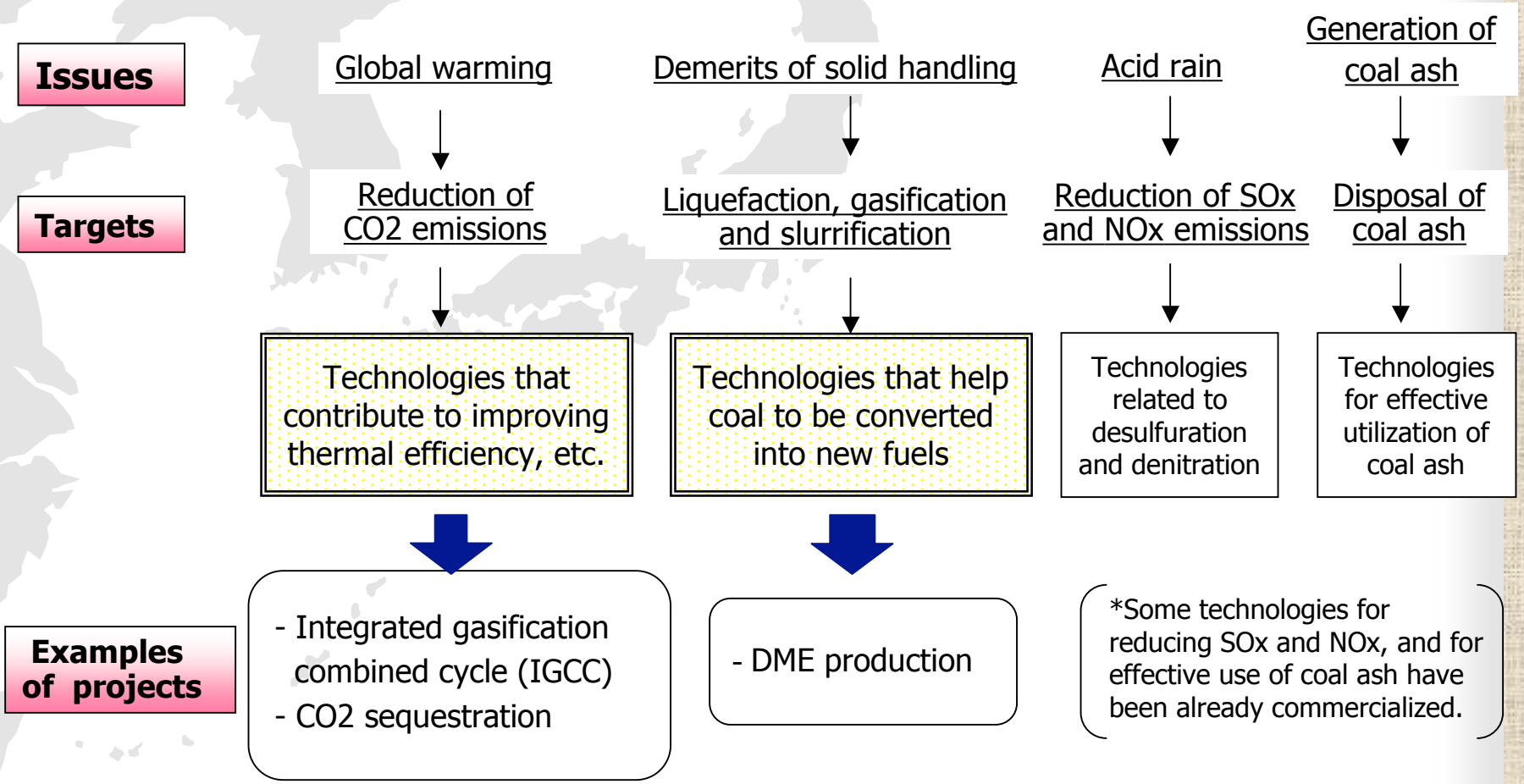
Main Measures to Promote Natural Gas

☆ Promotion of Domestic Pipeline Projects

☆ Promotion of new form of utilization (GTL/ DME)

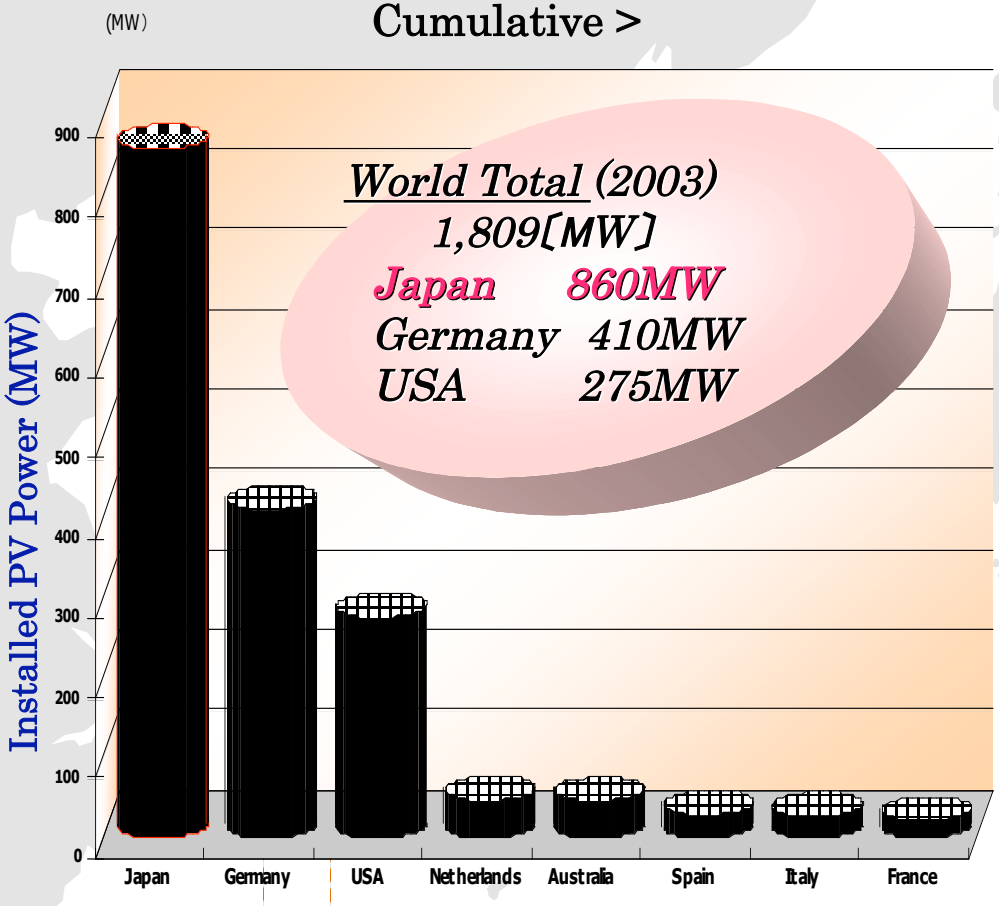
Clean Coal Technologies (CCT)

- Developing and diffusing clean coal technologies (CCT) is the key to achieving environmentally friendly use of coal.



New Energy

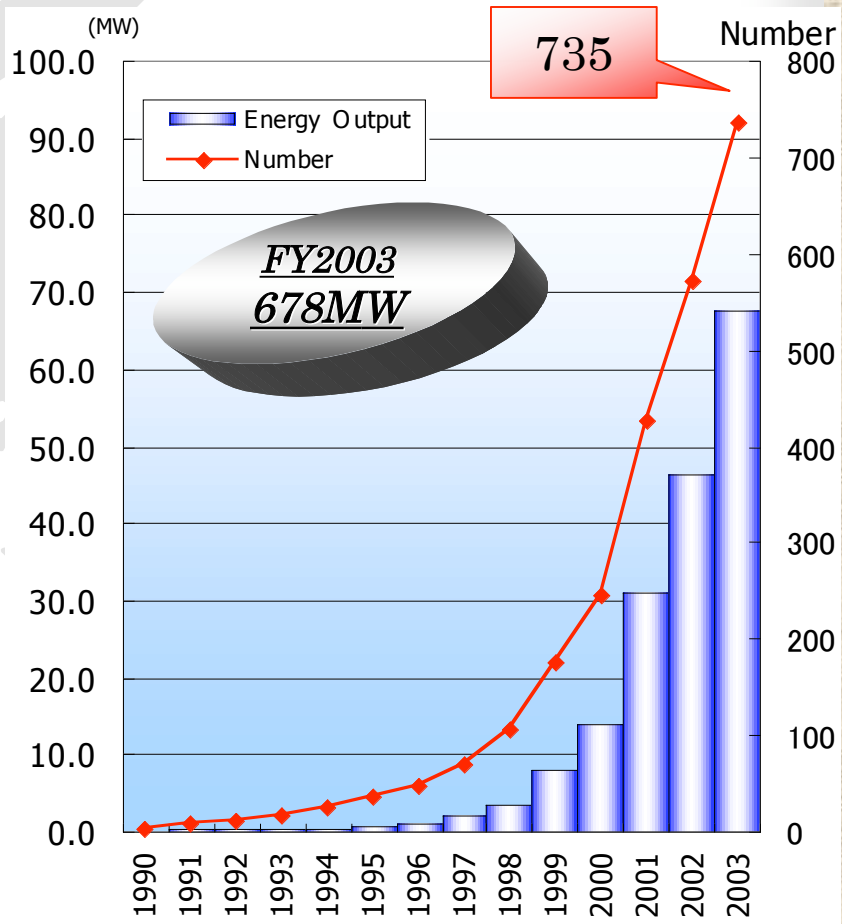
Installed Photovoltaic(PV) Power < Cumulative >



Source: Trends in Photovoltaic Applications/ IEA/ PVPS(2003)

*IEA/ PVPS members; Australia, Austria, Canada, Switzerland, Denmark, Germany, Spain, Finland, France, UK, Israel, Italy, Japan, Korea, Mexico, Netherlands, Norway, Portugal, Sweden, USA

Wind Power in Japan < Cumulative >



Source: NEDO

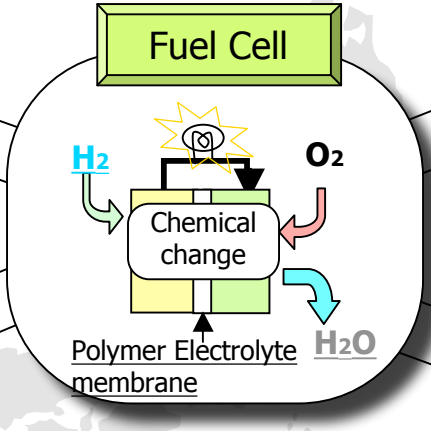
Energy Technology Innovation : Fuel Cells

Stationary Fuel Cell

Residential dispersed energy

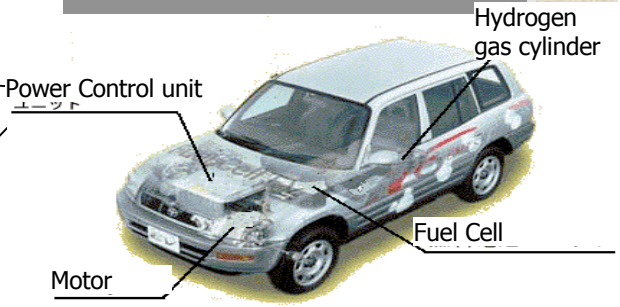
Portable Fuel Cell

Long-time usable power supply



Fuel-Cell Vehicle

Zero emission vehicle



High temperature type fuel cell

Highly efficient power generation

- Harmony with Environment
- Assurance of Energy Security
- Creation of new industries

【Targets for introduction of fuel cells】

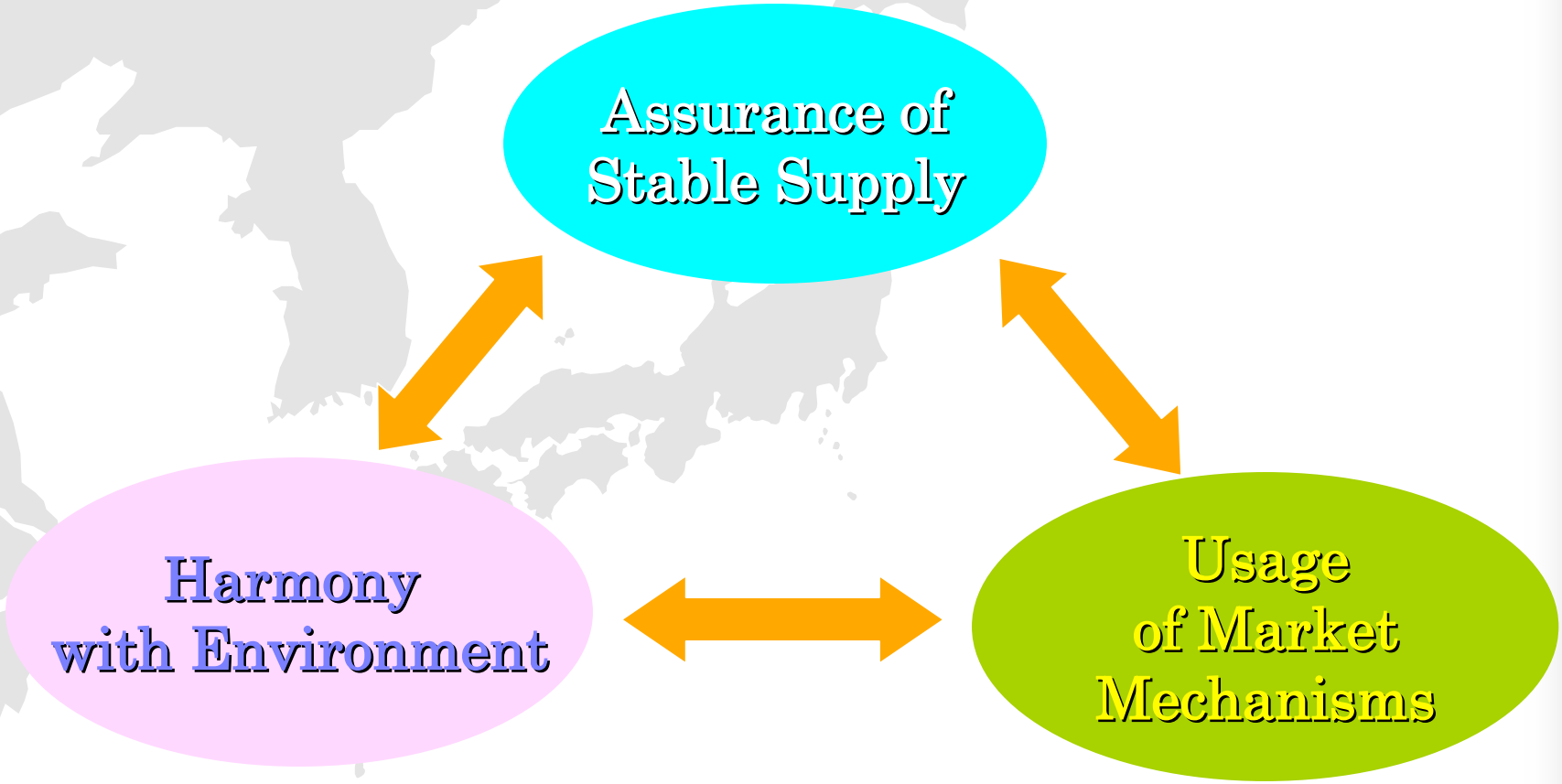
○Fuel Cell Vehicles : 50,000 by 2010, 5 million by 2020, 15million by 2030

○Stationary Fuel Cells : 2.2GW by 2010, 10GW by 2020, 12.5GW by 2030

The Japanese Energy Strategies

The Basic Principles of Japan's Energy Policy

Stipulated in The Basic Law on Energy Policy-Making (2002/6)



*Basic Plan on Energy : endorsed by the Cabinet on October 7, 2003

Four Strategies

Based on the Outlook for Energy Demand and Supply

1 Promote International Cooperation to deal with Growing Demand in Asia
- Reduce dependence on the Middle East
- Reinforce oil stock piling system in Asia
- Encourage energy conservation in Asia

2 Create Positive Cycles between Energy-Saving and Environmental Protection Efforts

3 Diversify the Sources of Energy Supply

4 Establish Flexible Energy Supply Systems


Thank you very much