

Northeast Asia Petroleum Forum 2009

Overview of Current Japanese Oil Industry and Important Issues in NE Asia

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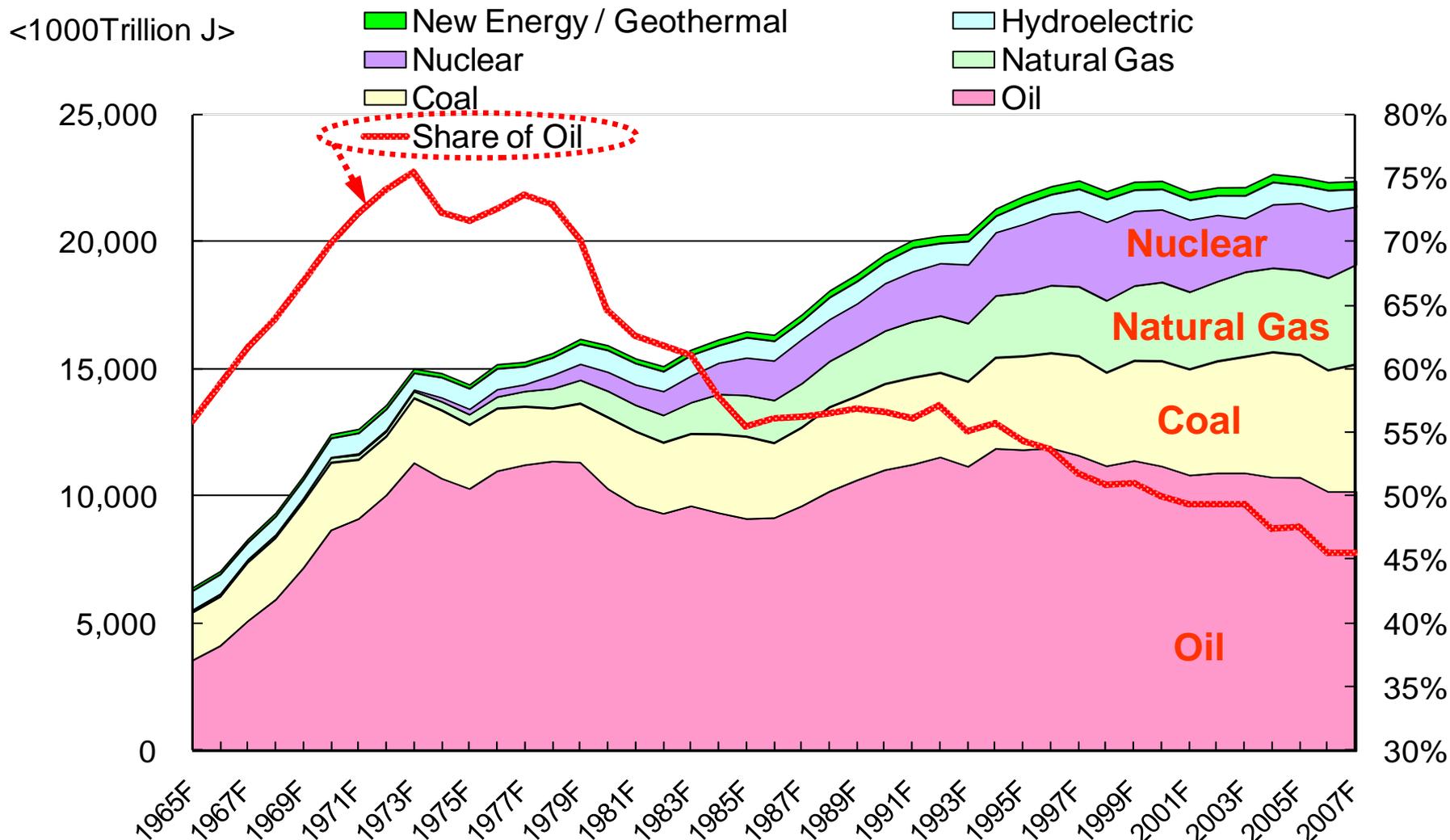
Chairman and Representative Director

Idemitsu Kosan Co., Ltd.

- 1. Energy Demand & Supply in Japan**
- 2. Refining Capacity increase
in Asia Pacific – Middle East**
- 3. Japanese Approaches**
- 4. Final Comments
“Important Issues in NE Asia”**

Diversify of Primary Energy Supply in Japan

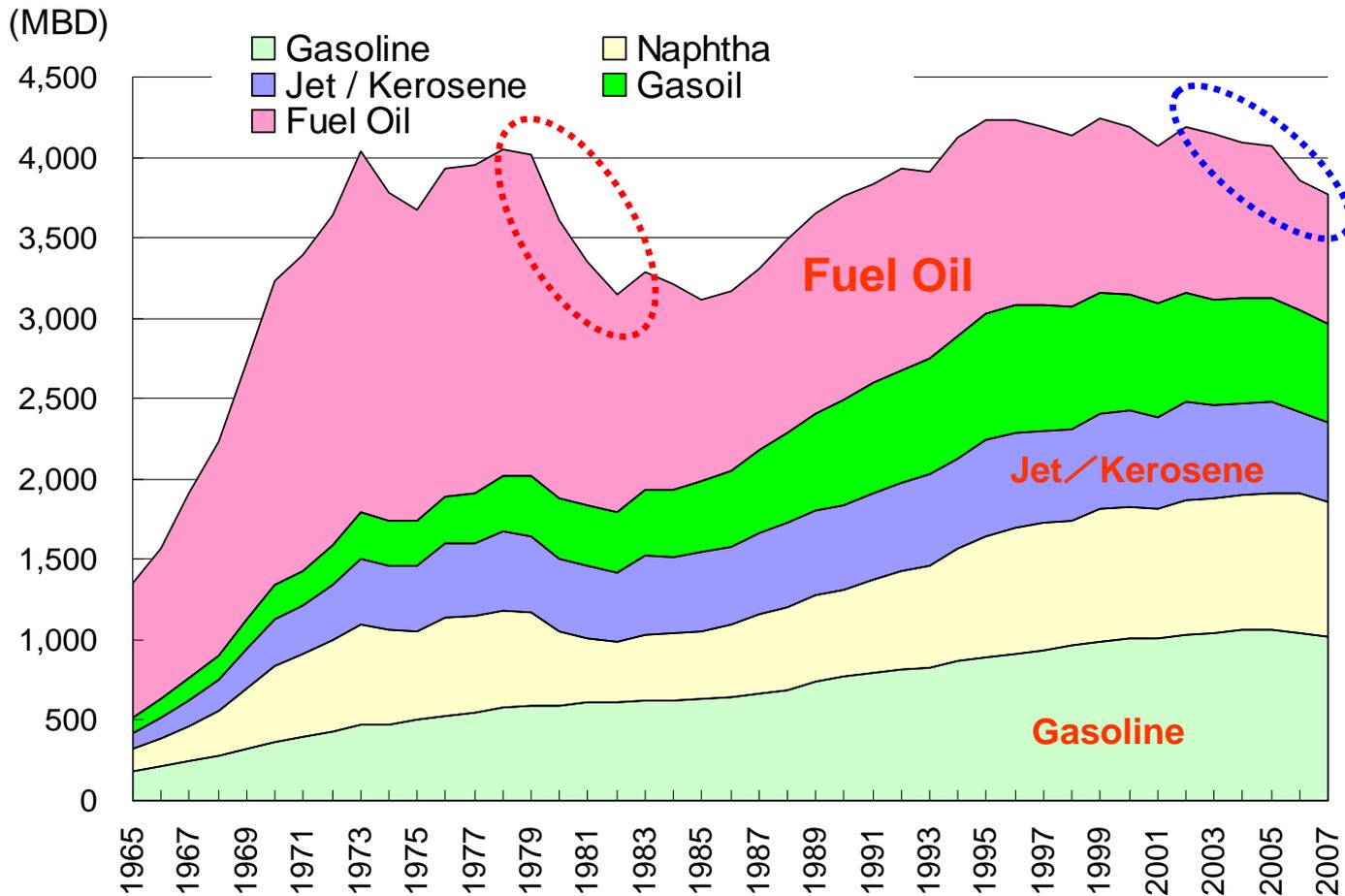
- ✓ Primary energy supply diversified through the experience of 1st & 2nd oil crisis.
- ✓ Dependence to oil sharply dropped from 76% in early 70's to 45% in 2007.



Source : Ministry of Economy, Trade & Industry, Japan

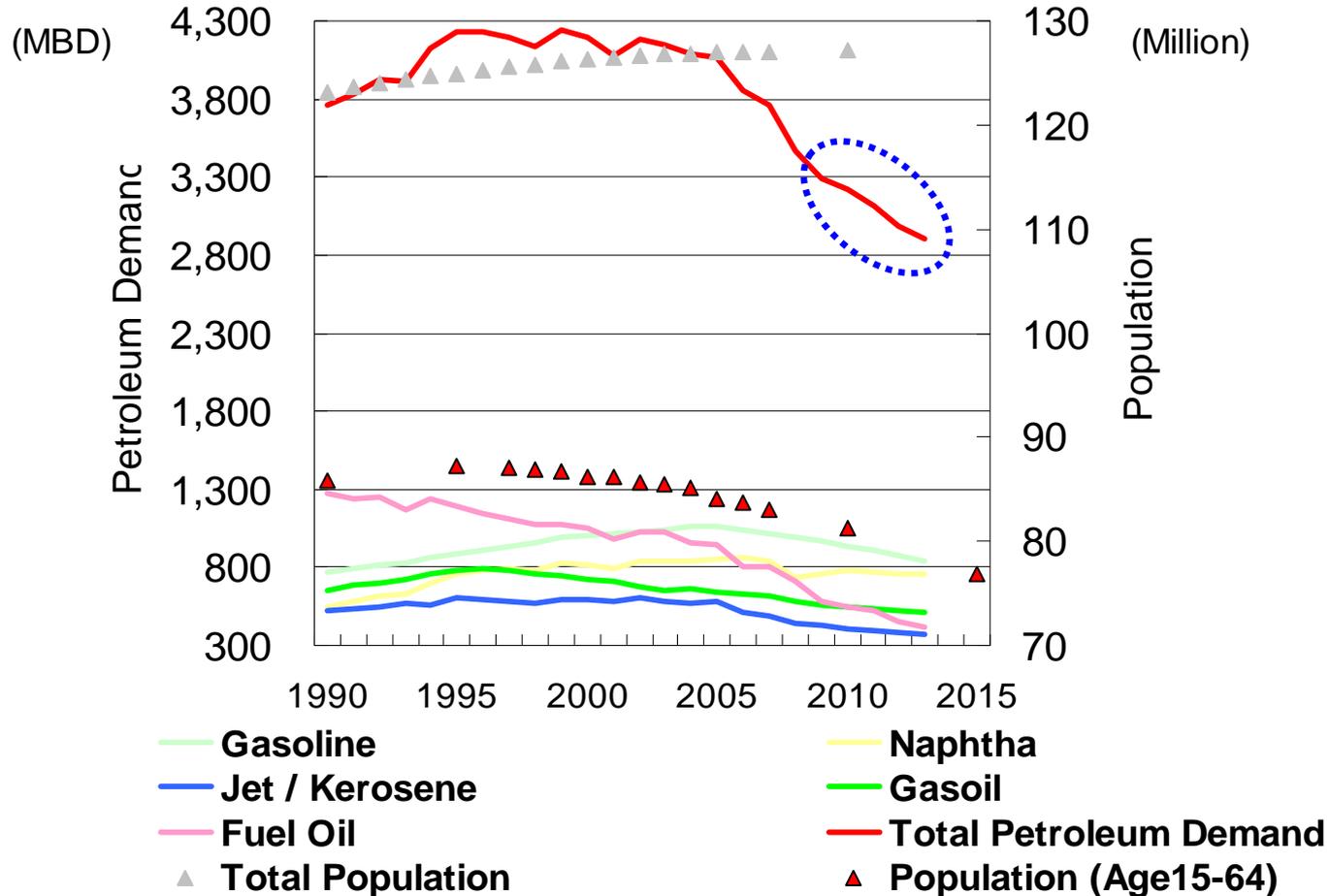
IEEJ: November 2009

- ✓ Japanese petroleum demand peaked out in 2003, and keep declining.
- ✓ Efficiency improvement & fuel switching in Industrial sector decrease fuel oil demand.



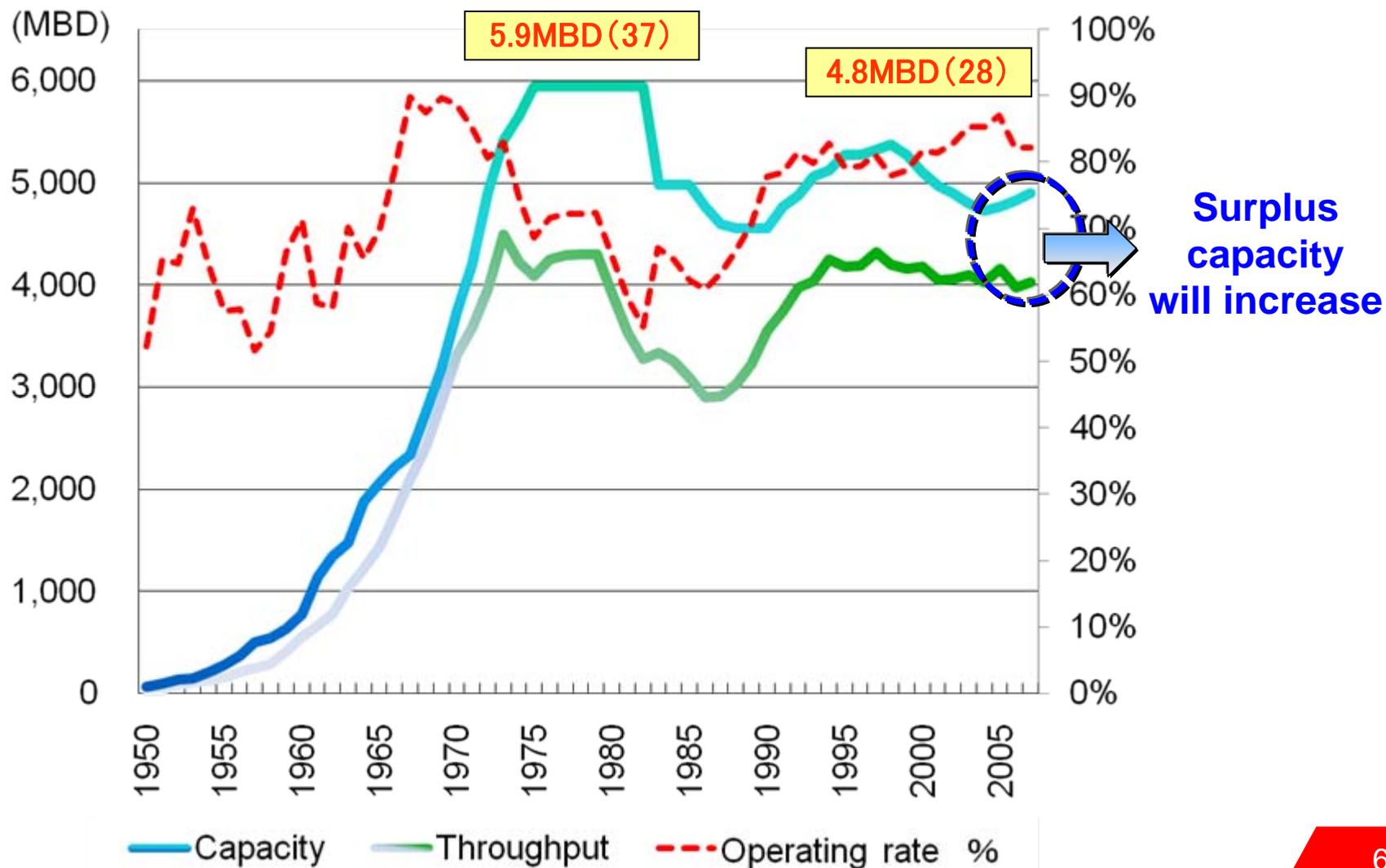
- ✓ Japanese petroleum demand will sharply drop **570 thousand b/d** by 2013, in line with population decrease and further improvement of energy efficiency.

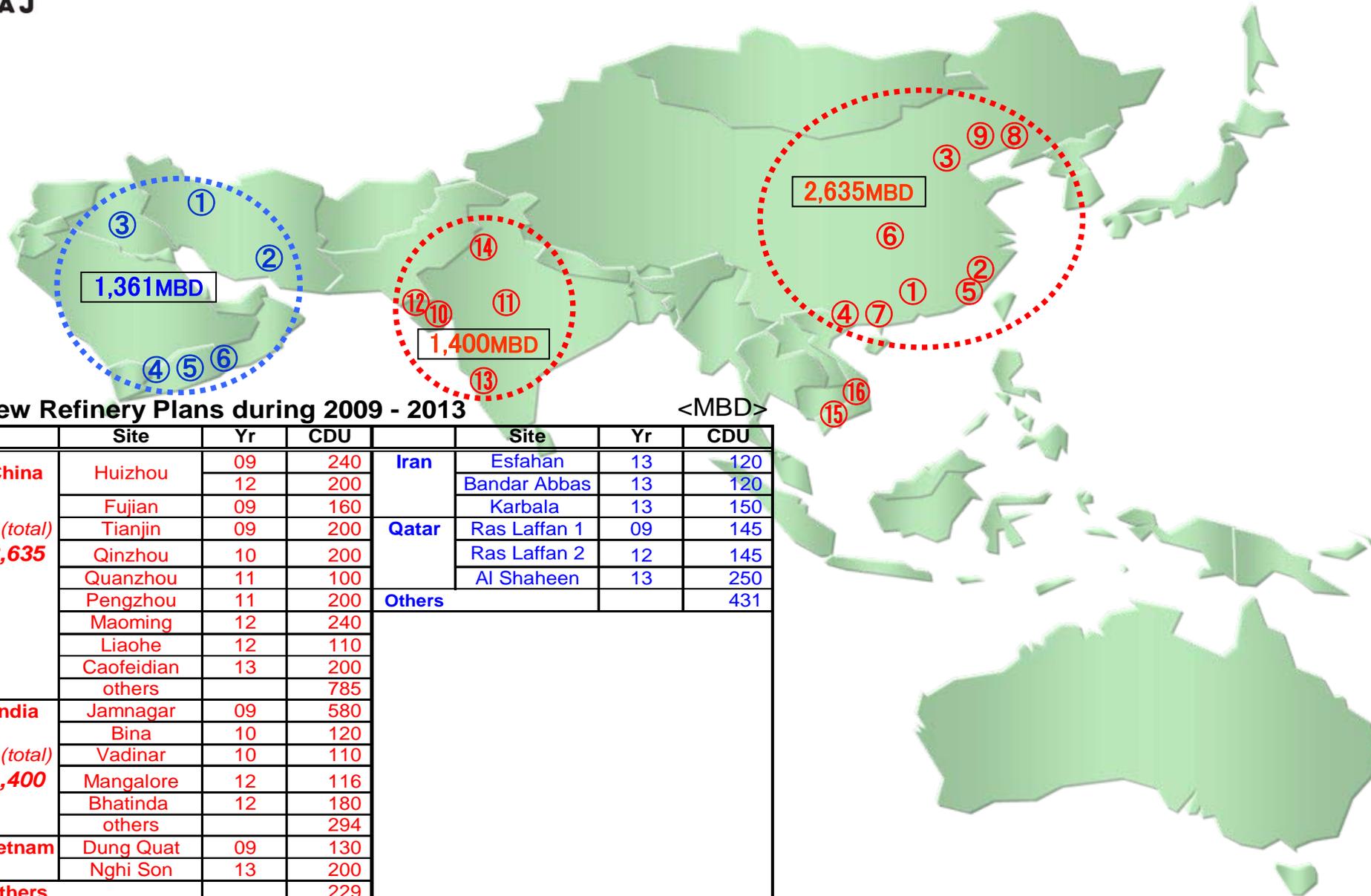
Japanese Petroleum Demand and Population Growth



Source : Ministry of Economy, Trade & Industry, Japan
Ministry of Internal Affairs and Communications, Japan

- ✓ Japanese oil companies increased their refineries until mid 1970's, under Japanese government's "Consuming Area Refining" policy .
- ✓ Surplus capacities have been causing downward pressure to domestic market price.

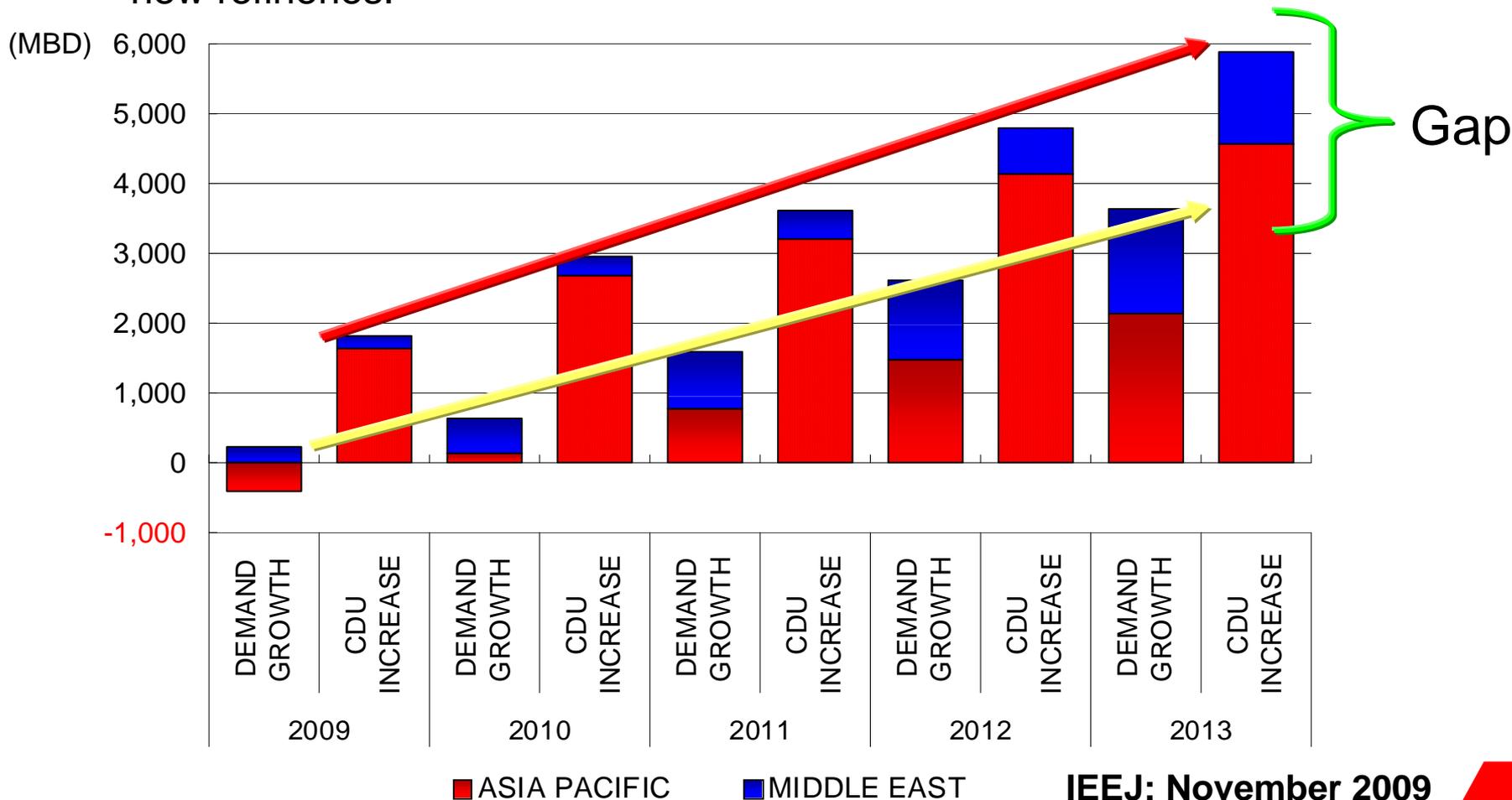




New Refinery Plans during 2009 - 2013 <MBD>

	Site	Yr	CDU		Site	Yr	CDU
China <i>(total)</i> 2,635	Huizhou	09	240	Iran	Esfahan	13	120
		12	200		Bandar Abbas	13	120
	Fujian	09	160		Karbala	13	150
	Tianjin	09	200	Qatar	Ras Laffan 1	09	145
	Qinzhou	10	200		Ras Laffan 2	12	145
	Quanzhou	11	100		Al Shaheen	13	250
	Pengzhou	11	200	Others			431
	Maoming	12	240				
	Liaohu	12	110				
	Caofeidian	13	200				
	others		785				
India <i>(total)</i> 1,400	Jamnagar	09	580				
	Bina	10	120				
	Vadinar	10	110				
	Mangalore	12	116				
	Bhatinda	12	180				
	others		294				
Vietnam	Dung Quat	09	130				
	Nghi Son	13	200				
Others			229				
Asia Pacific Total			4,594	Middle East Total			1,361
Asia Pacific & Middle East Total							5,955

- ✓ Oil demand in Asia Pacific & Middle East will steadily grow. However, as huge refining capacity addition will exceed demand growth, excess capacity will be increased by **2.3 million b/d in 2013**.
- ✓ Thus, product market will be under pressure of ample supply from those new refineries.

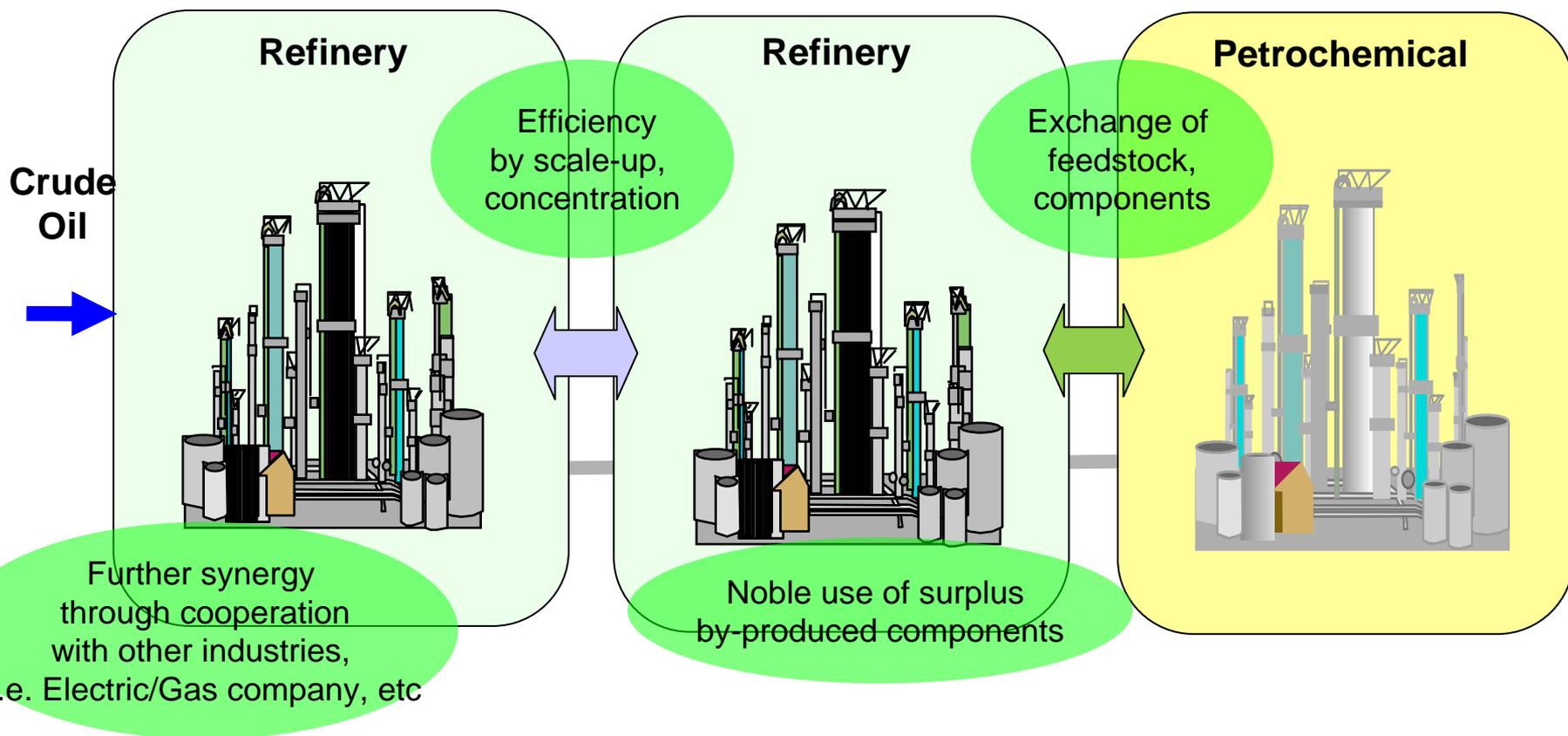


Japanese refiners are taking measures to strengthen their competitiveness among International market.

- A) Integrated operation of Refining & Petrochemical Complexes**
- B) Expansion of Product export**
- C) Reorganization and Rationalization**
- D) Environmental Measures**

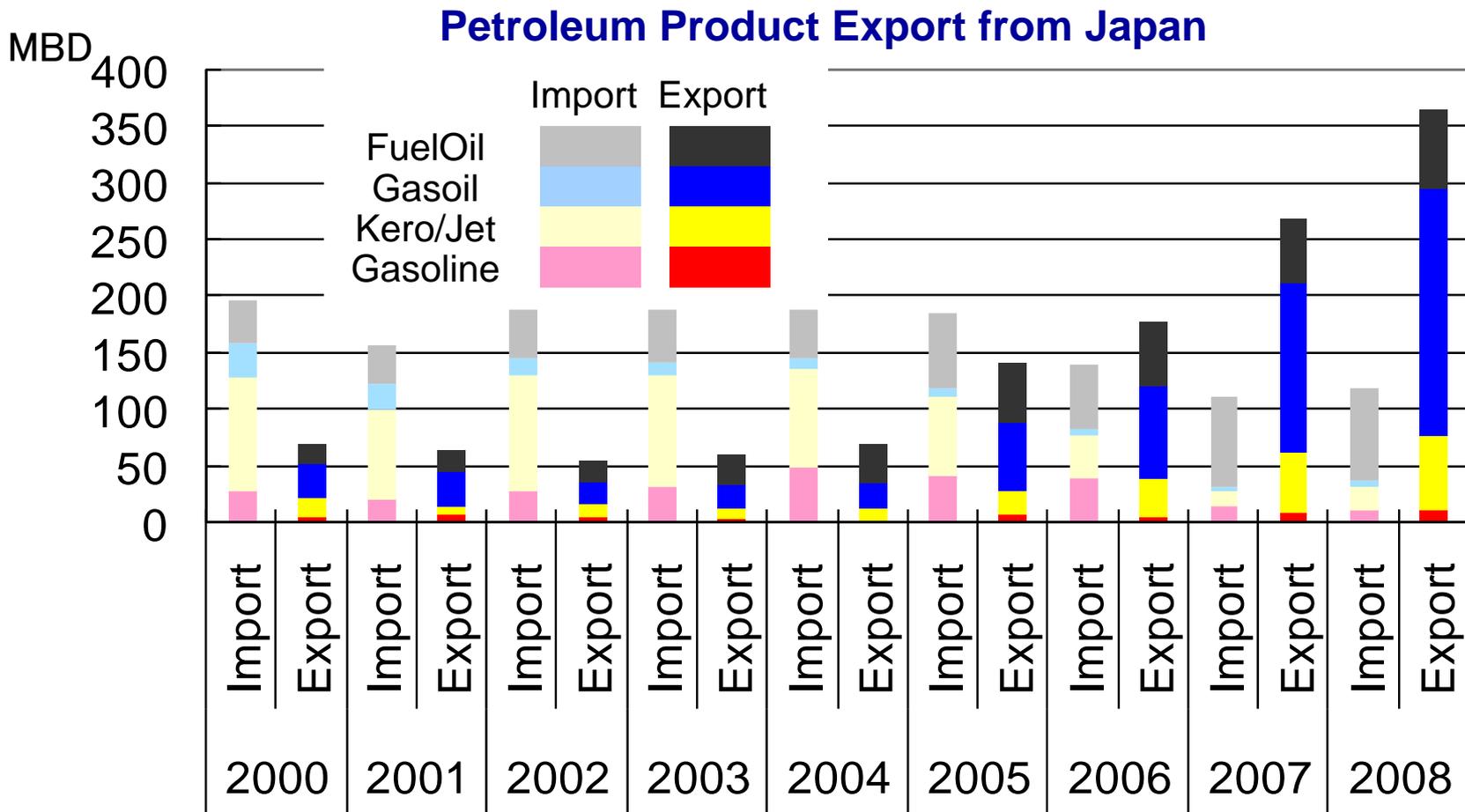
- ✓ Japanese Refineries has started to cooperate “**Over the fence**” (i.e., “between companies”, or “between refineries and petrochemical sites) , to achieve further efficiency by generating synergy with nearby plant.

Total Optimization of Refinery & Petrochemical Complexes



B) Expansion of Product Export

- ✓ Japanese refining companies expand product export from 2005, in line with peak out of domestic oil demand.
- ✓ Product export in 2008 contribute to utilize 8% of total refining capacities.



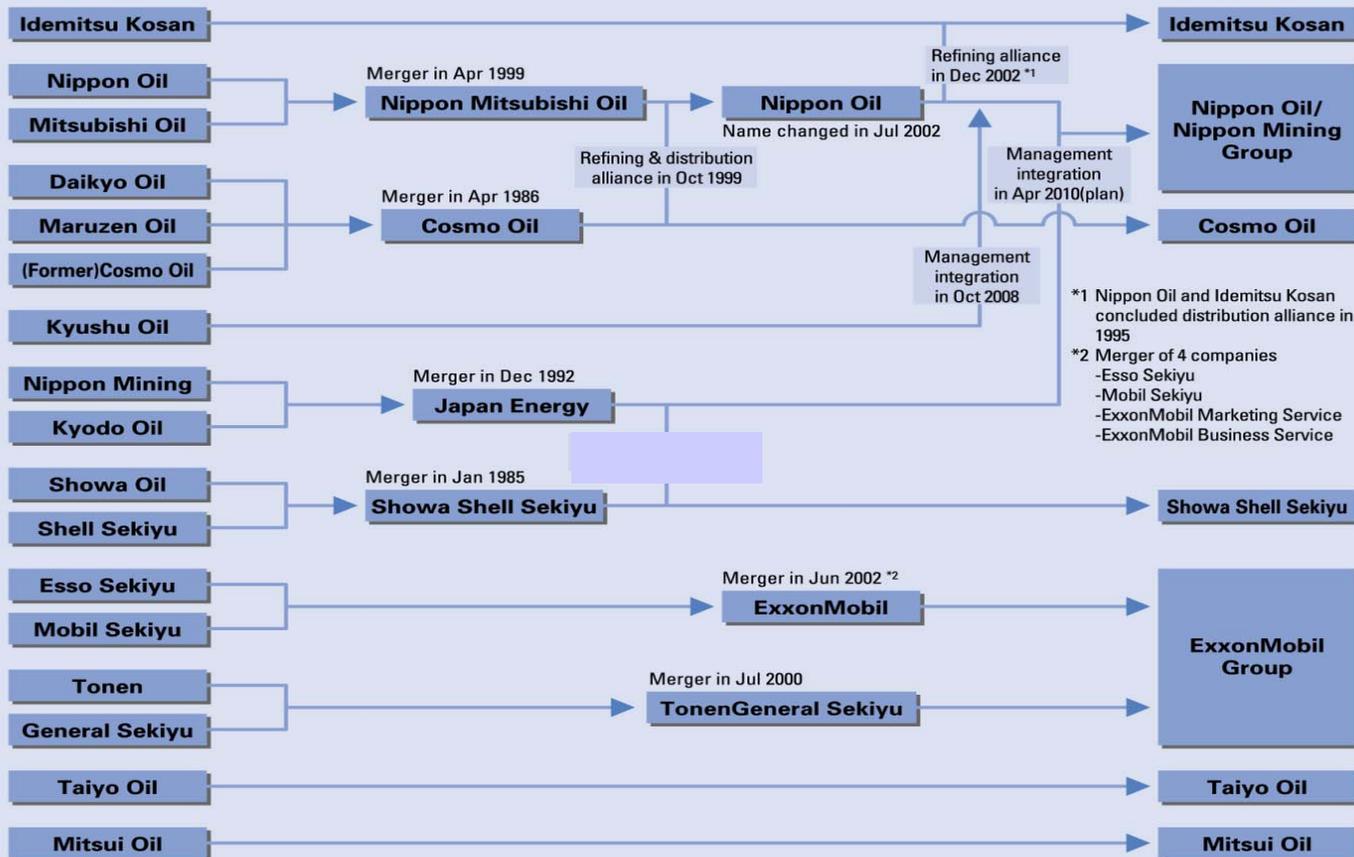
C) Reorganization and Rationalization

- ✓ Realignment of domestic refineries and oil distributors was accelerated after 1996 when deregulation of Petroleum product import restriction was introduced.
- ✓ During the transition period, restructuring of refineries, storage terminals and petrol station was carried out.

1985

2009

■ Reorganization of Oil Companies in Japan (as of March 2009)



- ✓ Simultaneous pursuit of Environmental protection, Energy security and Economic growth (“3E”) should be the basic principle.
- ✓ Improvement of energy efficiency, development of technology and international cooperation shall be key elements.

Japanese Oil Companies Actions over Climate Change

Efficient Operation

- *Improvement of Energy Efficiency
(= Reduction of CO₂ Emission in Refineries)*
- *“Over the fence collaboration with neighbor factories*
- *Efficient transport of oil products*

International Contribution

- *International cooperation*
ex. *Energy conservation project*
New Energy project (DME, etc)
CDM project

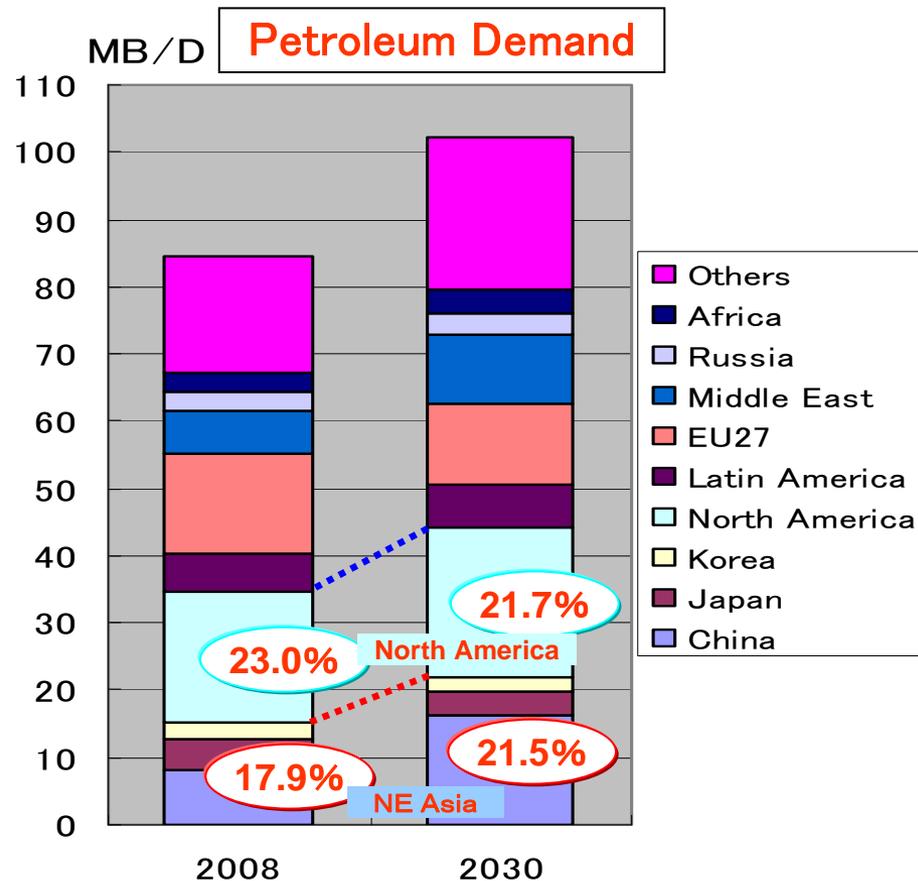
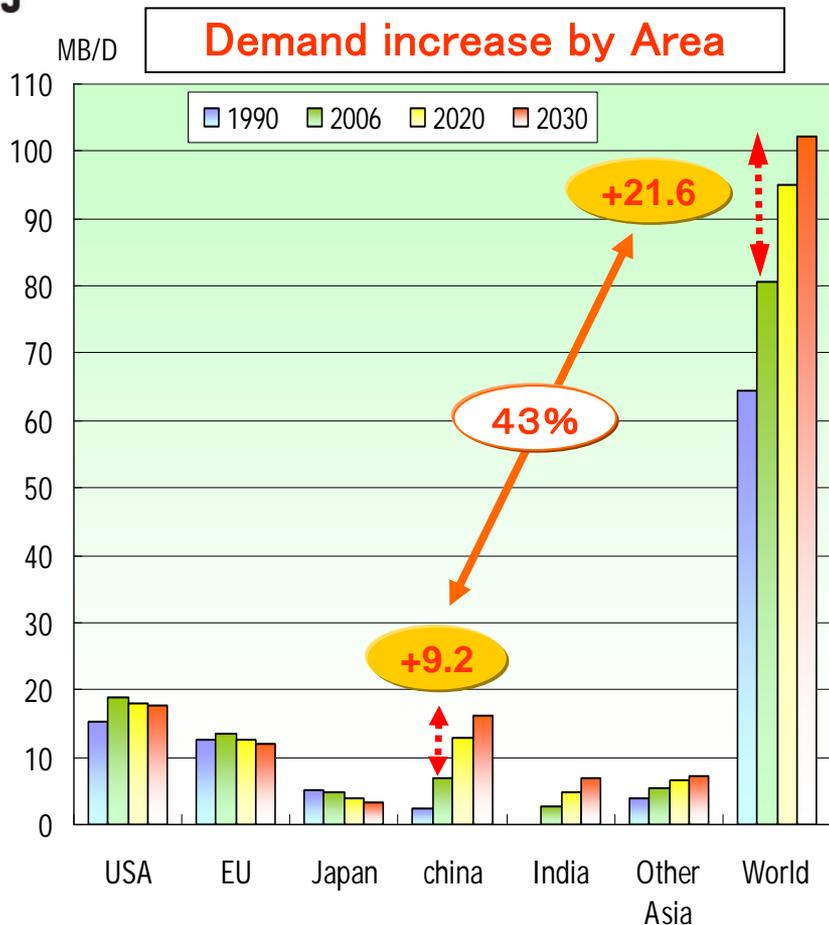
Efficient Consumption

- (High quality oil products & equipments)*
- *Contribution to Transport sec.*
ex. *Bio-Fuel, Sulfur-free fuel*
 - *Commercial & Residential sec.*
ex. *Petroleum Cogeneration System*

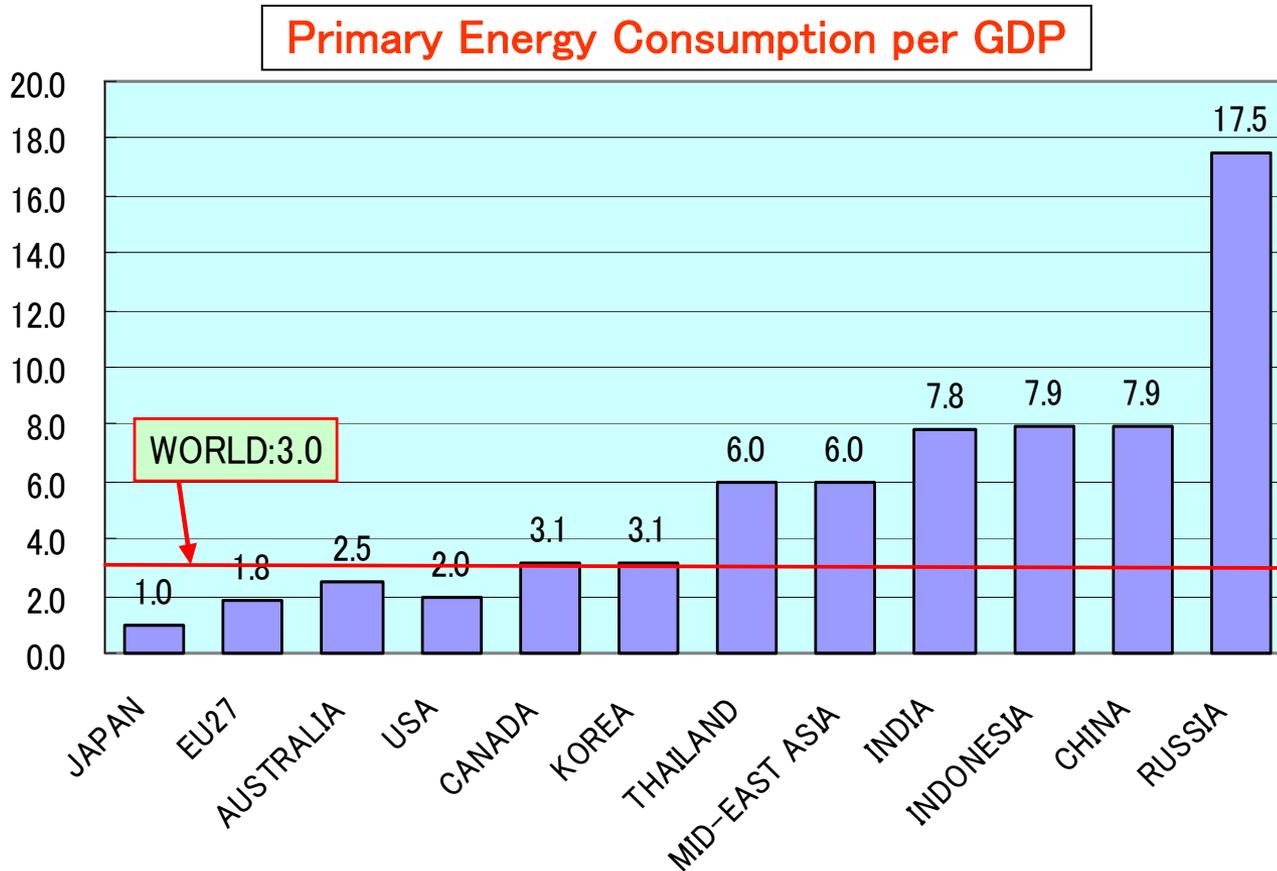
For the Future

- *R & D on Low carbon energy*
ex. *Fuel Cell*
Solar Power
Wind Power, CCS

Important Issues in Northeast Asia



- ✓ Global oil demand will be steadily grown toward 2030.
- ✓ Asia Pacific will be driver of global demand growth. China will account for 43% of total demand growth.
- ✓ Asian country's crude oil import requirement will rapidly increase, while regional crude oil production remain stable.



- ✓ It is important to reduce global energy consumption by practical use of technology of advanced energy efficient countries.
- ✓ The method of **sectoral approach** is effective to improve energy-saving measures by best practicing of technologies, with easy comparison among industries in each country.

Requirement for cooperation in NE Asian countries.

- ✓ **Saving resources by further improving energy efficiency**
 - Noble use of resource and reduction of environmental effect.
 - Equitable measure for each country by sectoral approach.
- ✓ **Securing stable crude supply from producing countries**
 - Import requirement will rapidly increase in Northeast Asia.
 - Strengthening ties by technical cooperation, partnership.
- ✓ **Efficient use of refining capacity in Northeast Asia**
 - Enhancing regional product trade to meet growing demand and utilize existing refineries.
- ✓ **Strengthening oversee of speculative funds to future market**
 - Restrict the inflow of excessive speculative funds to stabilize crude oil price.

- ✓ Energy issues are closely linked with regional economy. Regional ties and cooperate solution among Northeast Asia countries will be more efficient and required.
- ✓ It is important to encourage dialogue between key Northeast countries to discuss the issues shared by regional oil industry.

**Thank you
for your attention**

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