

Learning Japan's Lessons on Environmental Pollution and Economic Development

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Ministry of the Environment, Japan

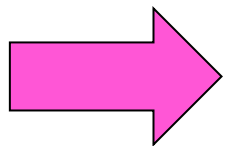
Education

- Graduated from Tokyo University, Faculty of Engineering

Professional Career

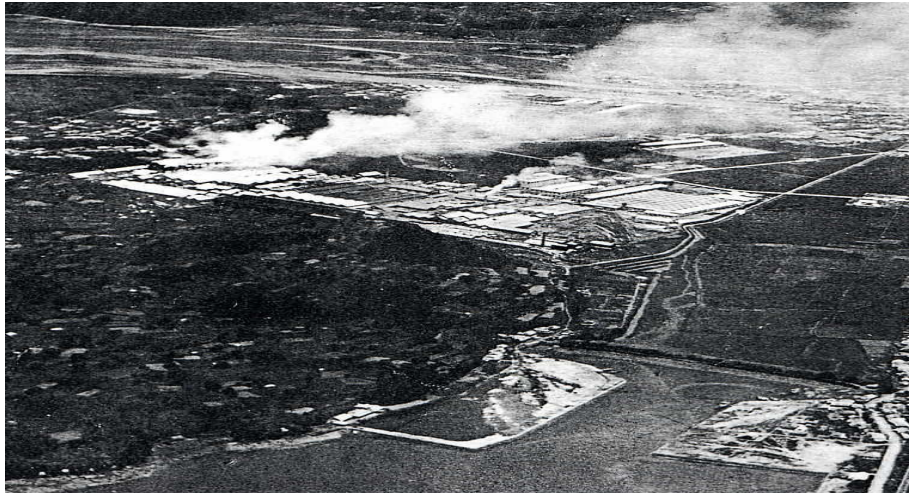
- 2016 Project Researcher, IR3S, Tokyo University
Senior Advisor, Ministry of the Environment (MOE)
- 2014 Vice Minister, MOE
- 2012 Director General, Global Environment Bureau, MOE
- 2011 Director General for Water Environment and
Decontamination, MOE
- 2006 Director, Municipal Waste Management Division, MOE
- 2005 Director, Industrial Waste Management Division, MOE
- 2003 Director, Air Quality Management Division, MOE
- 1998 Senior Environmental Engineer, The World Bank
- 1985 JICA Environment Expert to Thai Government

- Japan achieved high economic growth in 1950s, 60s and early 70s with little consideration of the environment, which caused;
 - Serious environmental pollution,
 - Mass disposal of waste, and
 - Destruction of nature.
- Four major pollution cases occurred in this period.



Huge prices Japan must pay later

Minamata Disease



In the 1950s:
Local residents
experienced numbness in
their hands and mouth
after eating fish caught in
local waters.



- Causative agent:
Methyl-Mercury
- Number of officially
certified patients : 2,274
(as of March 2013)

Yokkaichi Asthma



In the 1960s:

- Causative agent: sulfur oxide
- Air pollutants from a petrochemical complex caused severe cases of bronchitis and asthma among many local residents.

Itai-itai Disease

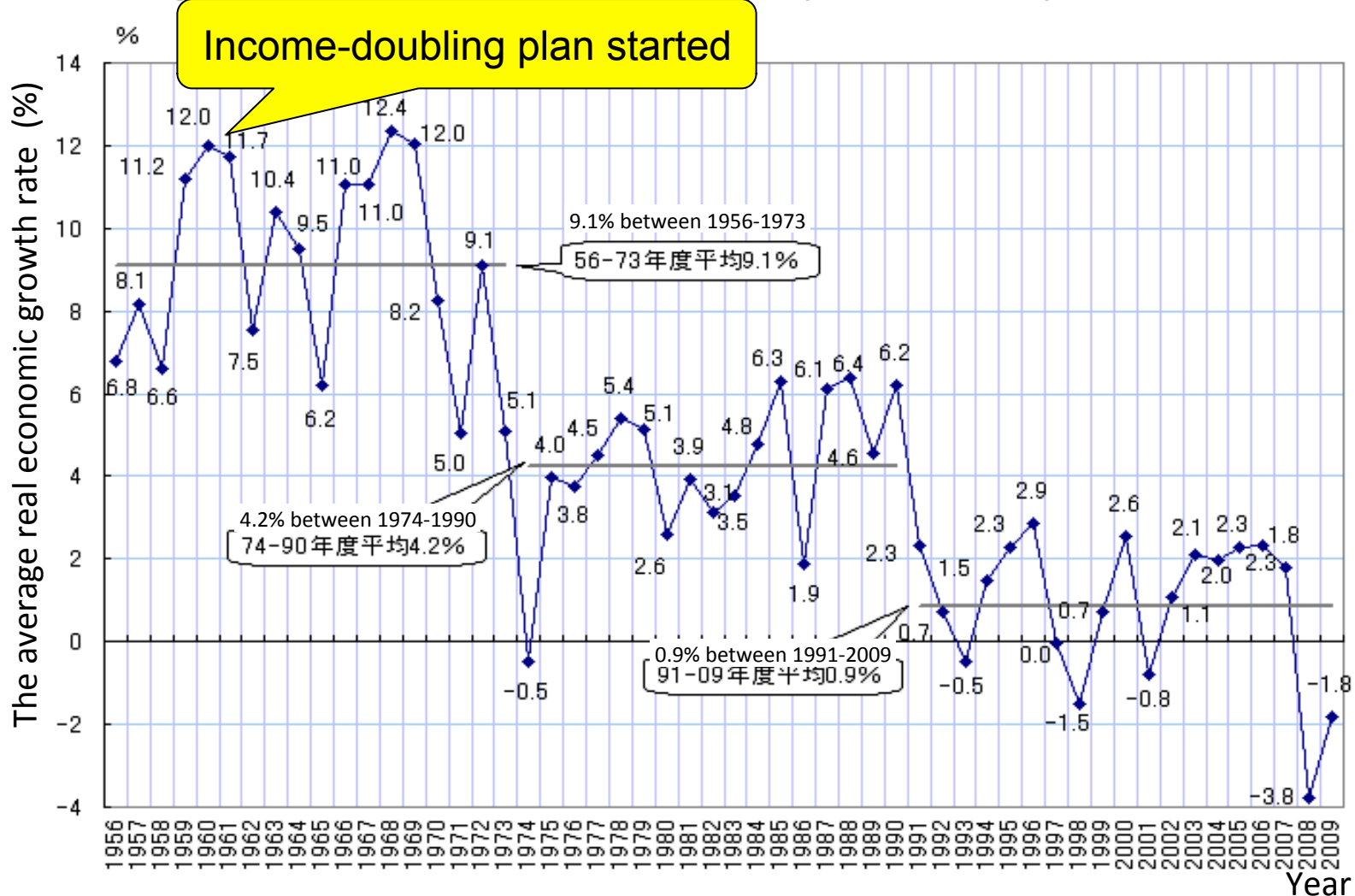


In the 1960s:

- Causative agent: Cadmium
- Cadmium from mine flew into rice farm and was taken in by residents through intake of rice.

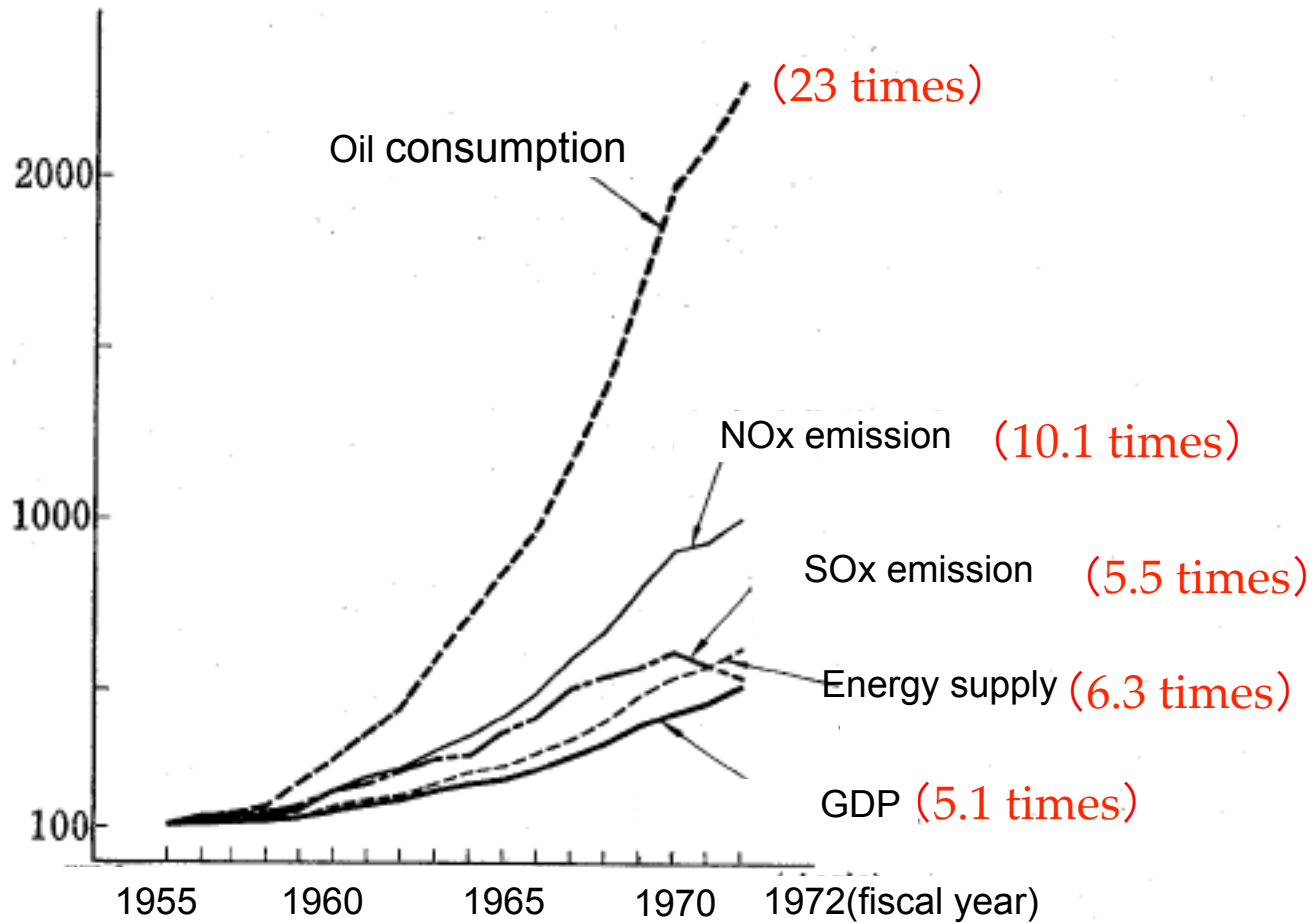
High Economic Growth (1955-1972)

- The average real economic growth rate marked 9.1% through the 1950s, 60s and early 70s in Japan



Economic growth rate in Japan

What happened during 1955-1972

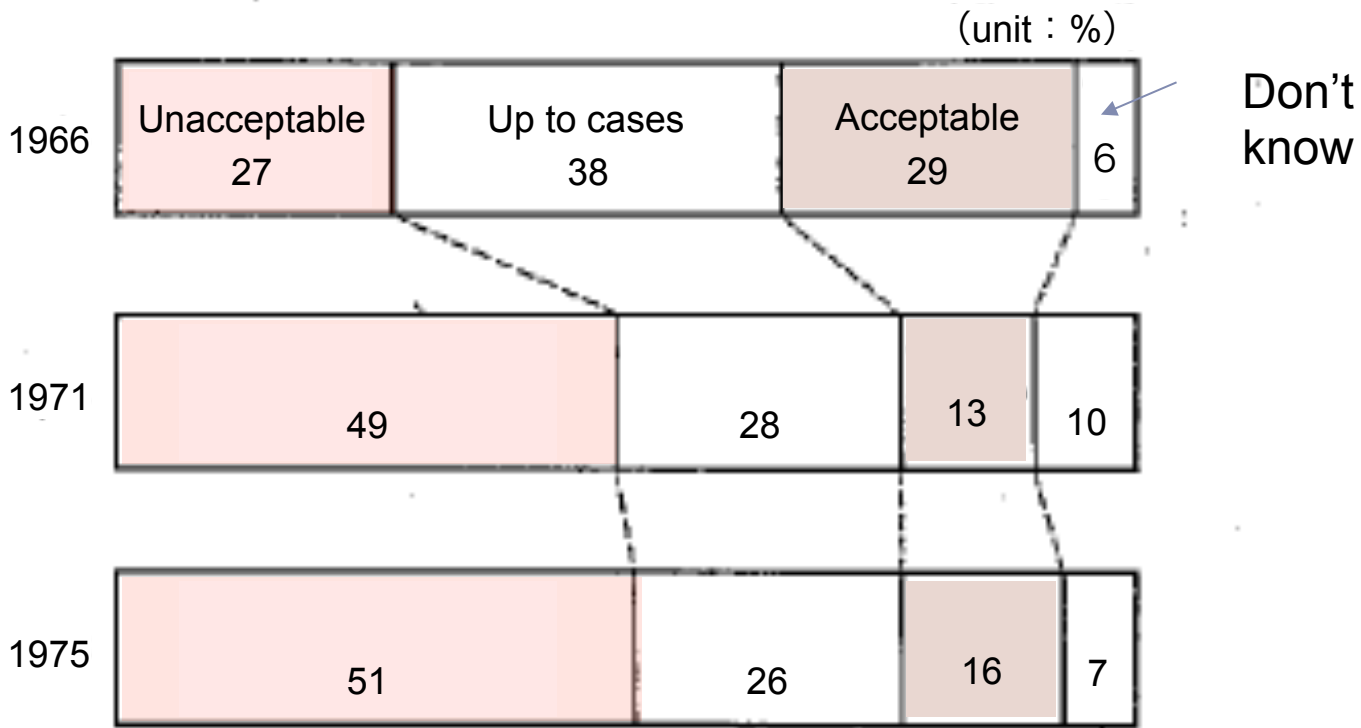


Source : Statistics from Economic Planning Agency and Ministry of International Trade and Industry

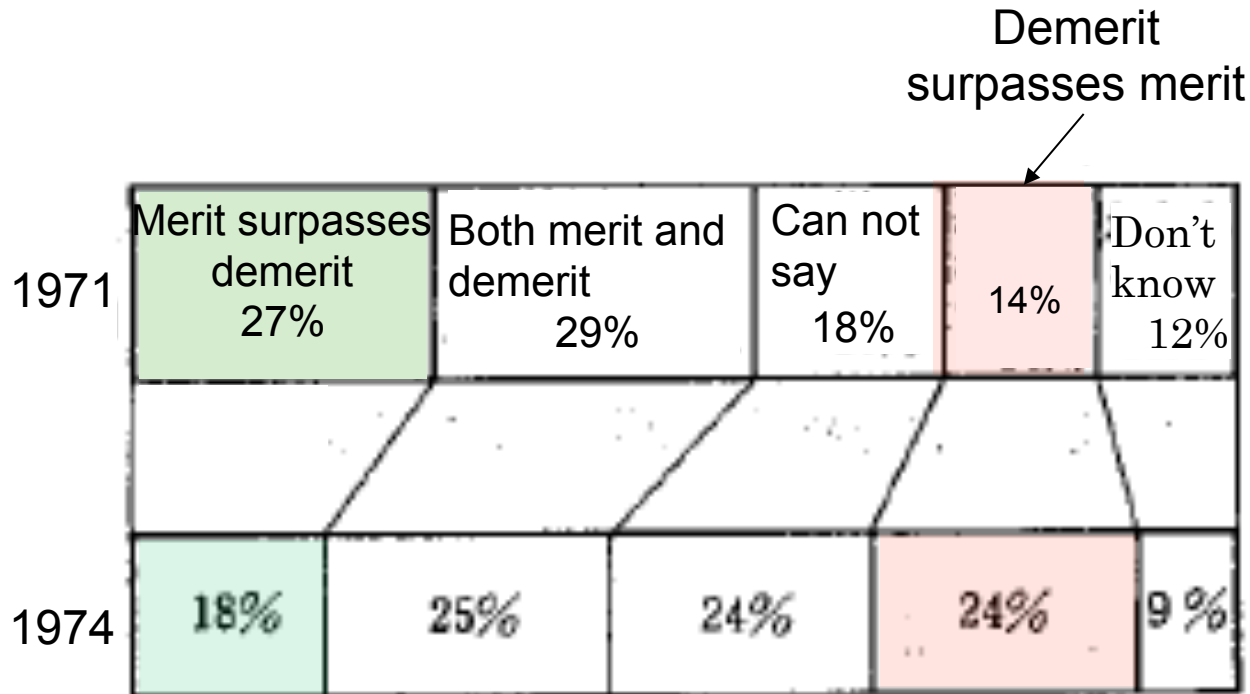
In the 1950s and the early 1960s,

- Economic growth rates had been exceptionally high. This was particularly true for industry, and especially for polluting industries.
- Production and consumption activities are **spatially very concentrated in industrial zones and urban areas.**
- The strong commitment to industrial growth, and **a relative neglect of environmental quality, were shared by most segments of the Japanese society.**

(OECD Review 1977: Environmental Policies in Japan)



Source: Prime Minister's Office "Opinion poll on environmental pollution" (1966, 1971 and 1975)



Source: Prime Minister's Office "Opinion poll on social issues" (1971, 1974)

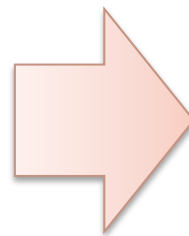
- By the late 1960s, Japan had become one of the most polluted countries in the world.
- A rather abrupt change in societal attitudes then took place.
- Environmental disruption, which had been, at least apparently, relatively well-tolerated became unacceptable leading to the quick development and implementation of strong and multifaceted policies.

(OECD Review 1977: Environmental Polices in Japan)

1960s



Ministry of the Environment

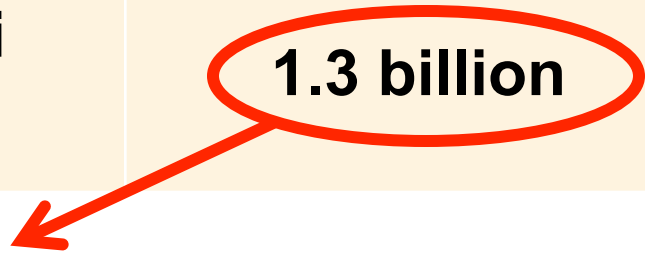


Now



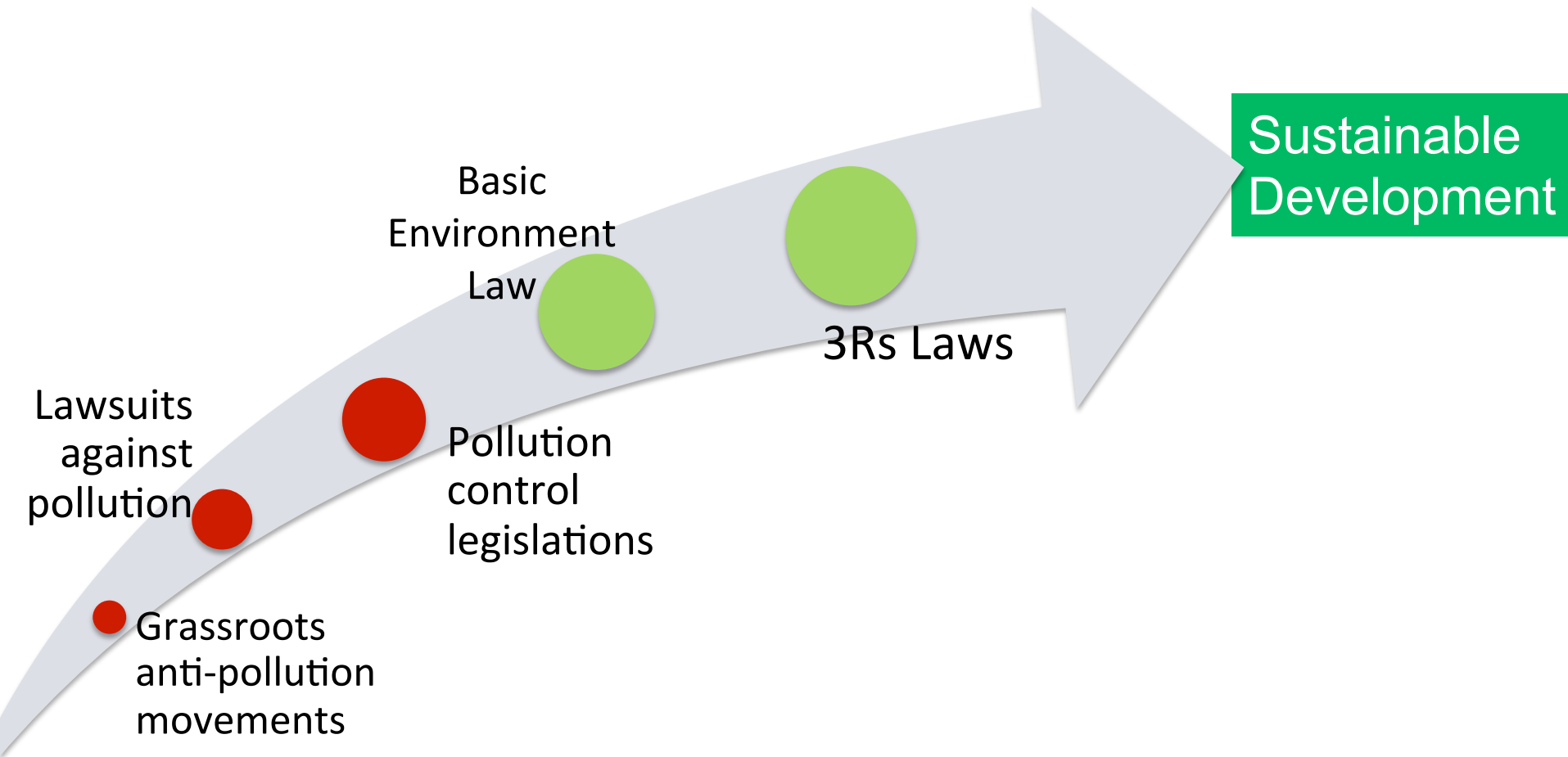
100 yen = 1 USD

Pollution	Economic loss (yen/year)	Expenditure for pollution control (yen/year)
Minamata Disease	12.6 billion	0.1 billion
Itai-Itai Disease	2.5 billion	0.6 billion
Yokkaichi Asthma	1.3 billion	14.7 billion

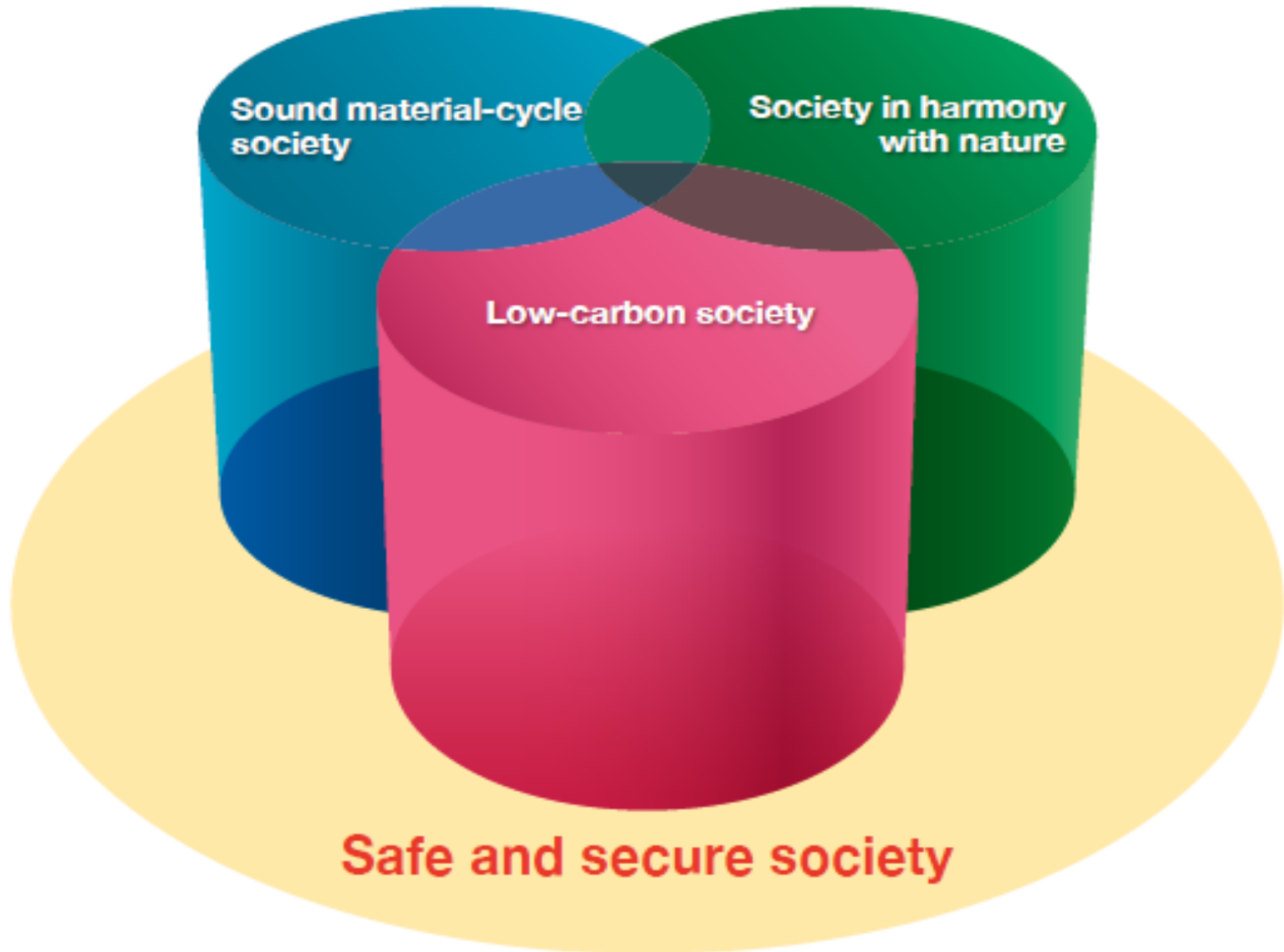


21 billion (without any countermeasures taken.(total))

*The above values are 1989 price of equalized values of economic loss and actual pollution control expenditure with assumption that maturity period is 15 to 30 years.



Nationwide serious environmental pollution



Integration of Three Societies

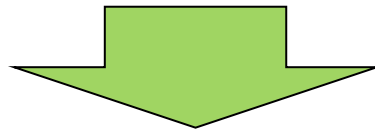
The 4th Basic Environment Plan says;

Sustainable society we pursue is;

a society which achieves (1) low-carbon society, (2) sound material-cycle society, and (3) society in harmony with nature, while ensuring security and safety as a basis, with citizens' participation, and which preserves a sound and rich environment both globally and locally.

(Cabinet Decision on April 27, 2012)

- ❑ Under high economic growth, Japan had become one of the most polluted countries in the world by the late 1960s.
- ❑ Due to a wide-spread anti-pollution sentiment among Japanese population, drastic policy change took place around 1970.
- ❑ By 1980s, Japan became one of the cleanest countries in the world.



Lessons learned:

Prevention is far better than cure not only for pollution control but also for climate change mitigation.

Leap Frog Developments

