

The 3rd Asian Forum

Sustainable Building in Asia (SB05Tokyo)

January 28th, 2004

Director for Land Use Coordination
Ministry of Land, Infrastructure & Transport
J A P A N

Shoichi ANDO Dr.

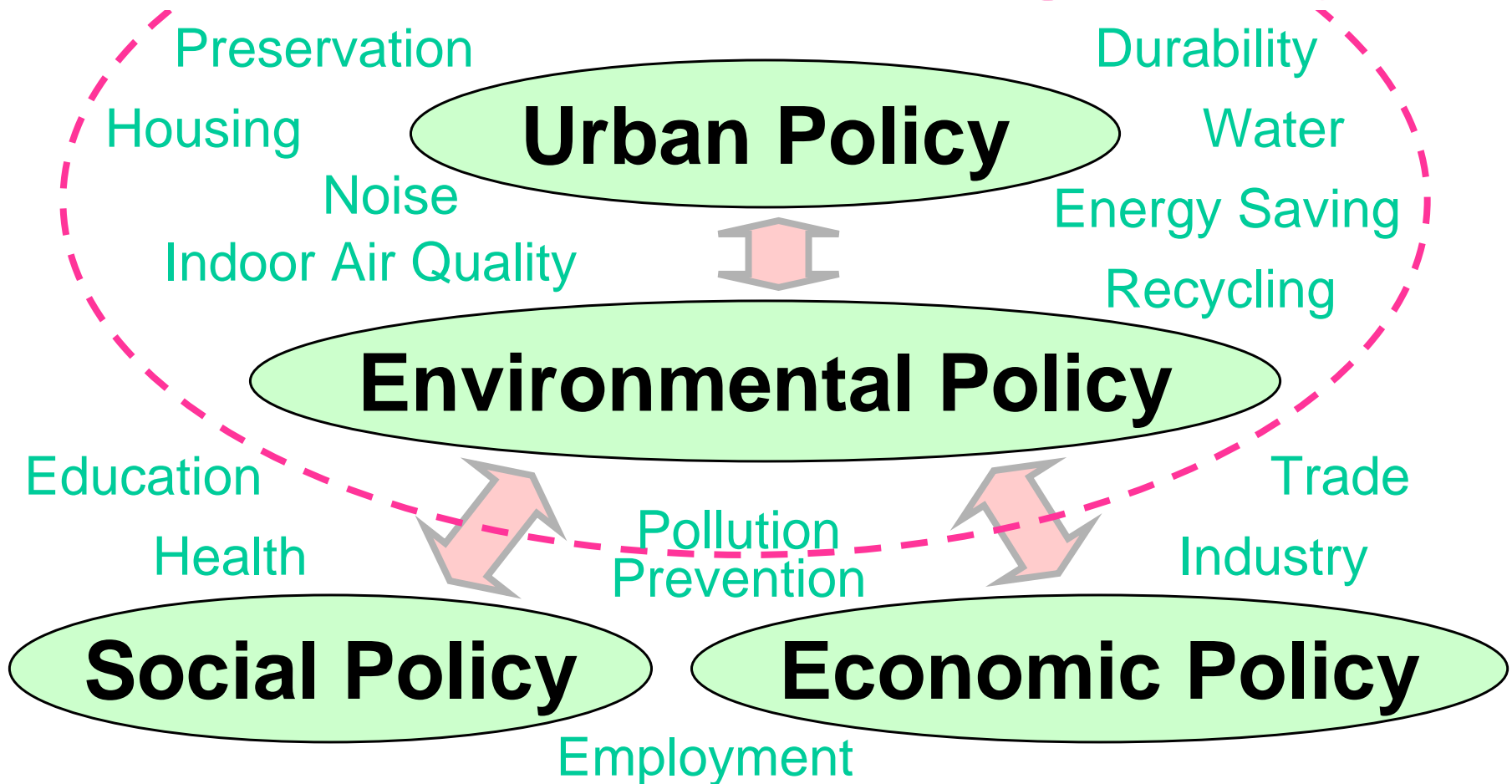
1. What is Sustainable Building ?

1-1. Policy Areas of Sustainable Building by the OECD SB Project

- 1. Resource Efficiency** (Durability, Waste, Recycle etc.)
- 2. Energy Efficiency** (Energy saving, CO2 gas etc.)
- 3. Pollution Prevention** (Indoor air quality, noise etc.)
- 4. Harmonization** (with Natural & social environment etc.)
- 5. Systemic Approach** (ISO14000's, Urban planning etc.)

1-2. Policy Areas related to Sustainability

Sustainable Building Policy



1-3. Laws on Sustainable Building in JAPAN

Basic Environmental Law

Recycling-oriented Society Law

Environment Global Warming Mitigation Law

Construction Materials Recycling Act

Act on Rational Use of Energy

Urban Housing Quality Assurance Law

Building Standard Law, City Planning Law

Housing Loan Corporation Law

etc.

1-4. Issues of Environmental Policy in the Building Sector

- 1) Environmental policies in the building sector adopt less incentive tools than regulatory tools.

Incentive for energy saving houses by the Housing Loan Corporation (Case Study: CS1)

- 2) Policy tools in the building sector tend to be specialized in each elemental technology of building, and are not comprehensive and integrated.

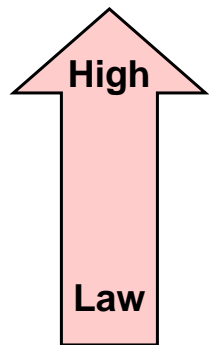
**Forming Cyclic-type Housing Market (CS2)
Urban Renaissance Projects**

- 3) Building policies have not yet established, an international coordination will be desirable.

OECD Project, SB05Tokyo, SB04

2. Basic Direction to Select a Policy Tool for Sustainability

2-1. Classification and Priority of Policy Tools in Japan



- 1) Arrangement of the market
- 2) Inducement of the market
- 3) Complement of the market

Key Concepts:

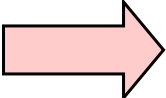
Market Mechanism, Administrative Reform, Deregulation, Disclosure, Participation etc.

2-2. Basic Direction to Select a Policy Tool in the Building Sector

1. Market Mechanism:

Complement  Inducement  Arrangement

2. Administrative Reform:

Public involvement  Private Initiatives

3. Deregulation:

Regulations  Disclosure  Responsibility

2-3. Principles of Policy Design

- (1) Life Cycle Approach of Policy Tools
(Time concept into the policies)
- (2) Integration of Tools (Broad approach)
- (3) Total Evaluation of Policy Effects
(Concept of total environmental burden)
- (4) Globalization of Policy Tools
(Concept of global space and bodies)
- (5) Social Approach of Policy Tools
(Life-style approach of policy tools)

3. Case Study 1

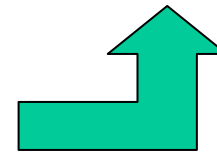
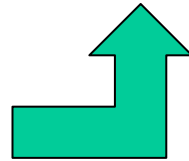
Energy Saving Houses by
HLC (Housing Loan Corporation)

1999
Upgraded

1992
Upgraded

1980
Recommended
Standard for
Energy Saving

3-1. Standard
for Premium
Loan by the HLC
in Japan

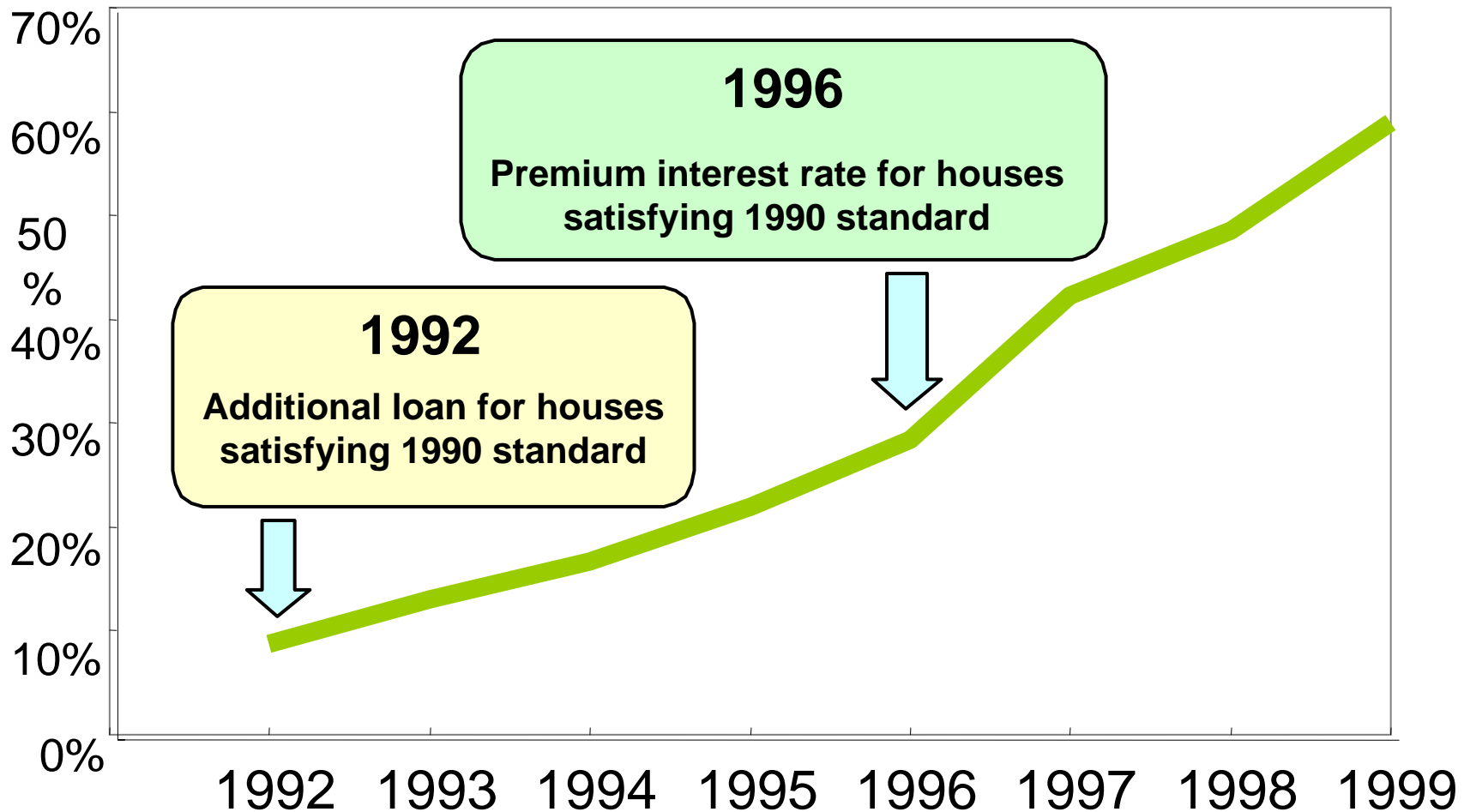


3-2. Premium Loans by the HLC

Standard	Interest rate	Additional loan
1999	2.55%	2.5 million yen/unit
1992	2.55%	1.0 million yen/unit
1980	2.65%	no additional loan
Under 1980 standard level		(not eligible for HLC loans)

3-3. Effectiveness of HLC Loans

Proportion of houses satisfying 1992 standard



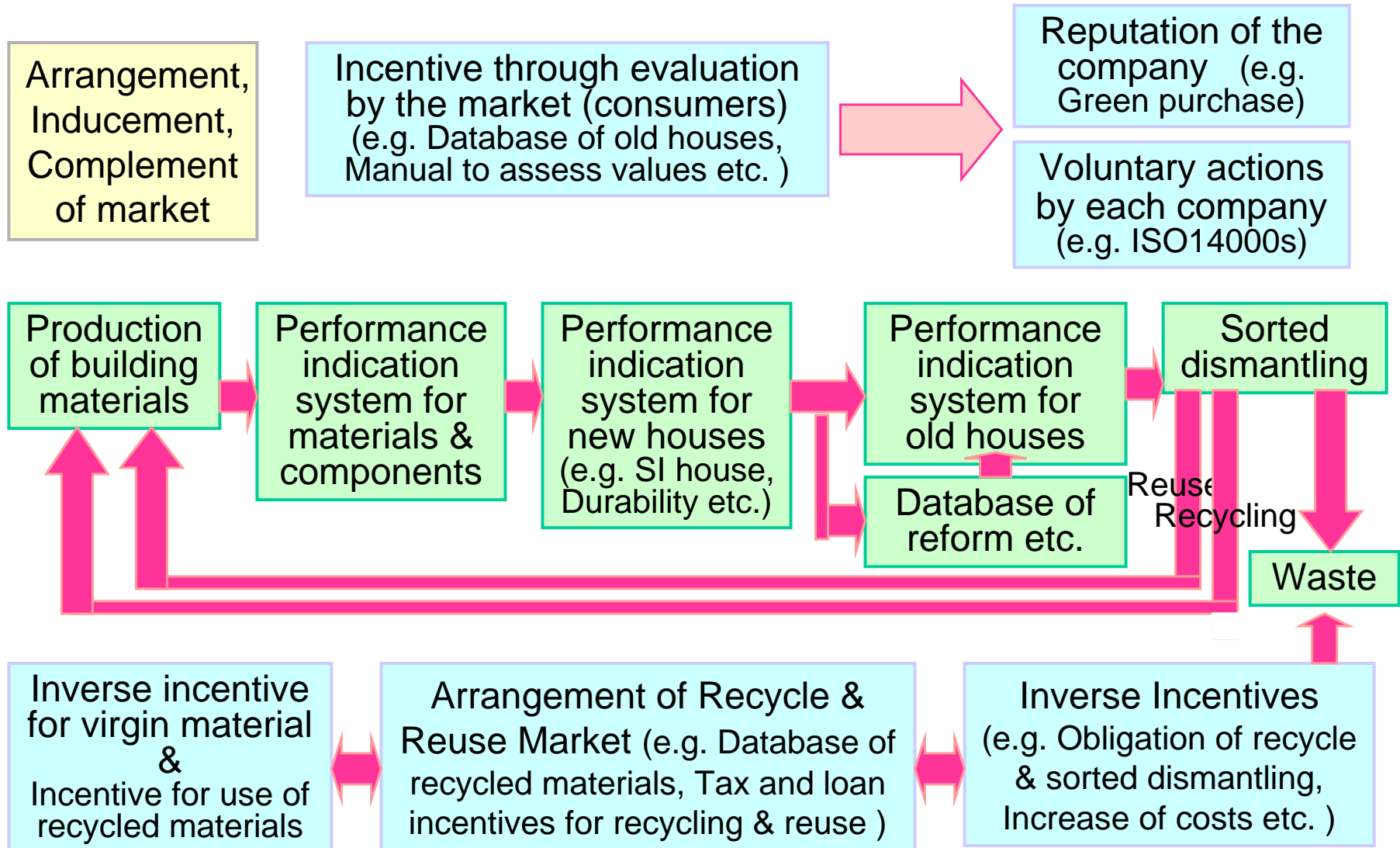
4. Japanese Case Study 2

Forming Cyclic-type Housing Market

- 1) Japanese traditional wooden systems that have realized cyclic-type housing market should be rearranged in a modern way.
- 2) Technologies and market formation are required to cope with more diversified materials, construction methods and equipments.
- 3) Concretely, **Evaluation system for existing houses**, Housing loan system and **Market arrangement for recycled materials**.

4-1. Sustainable Housing Market

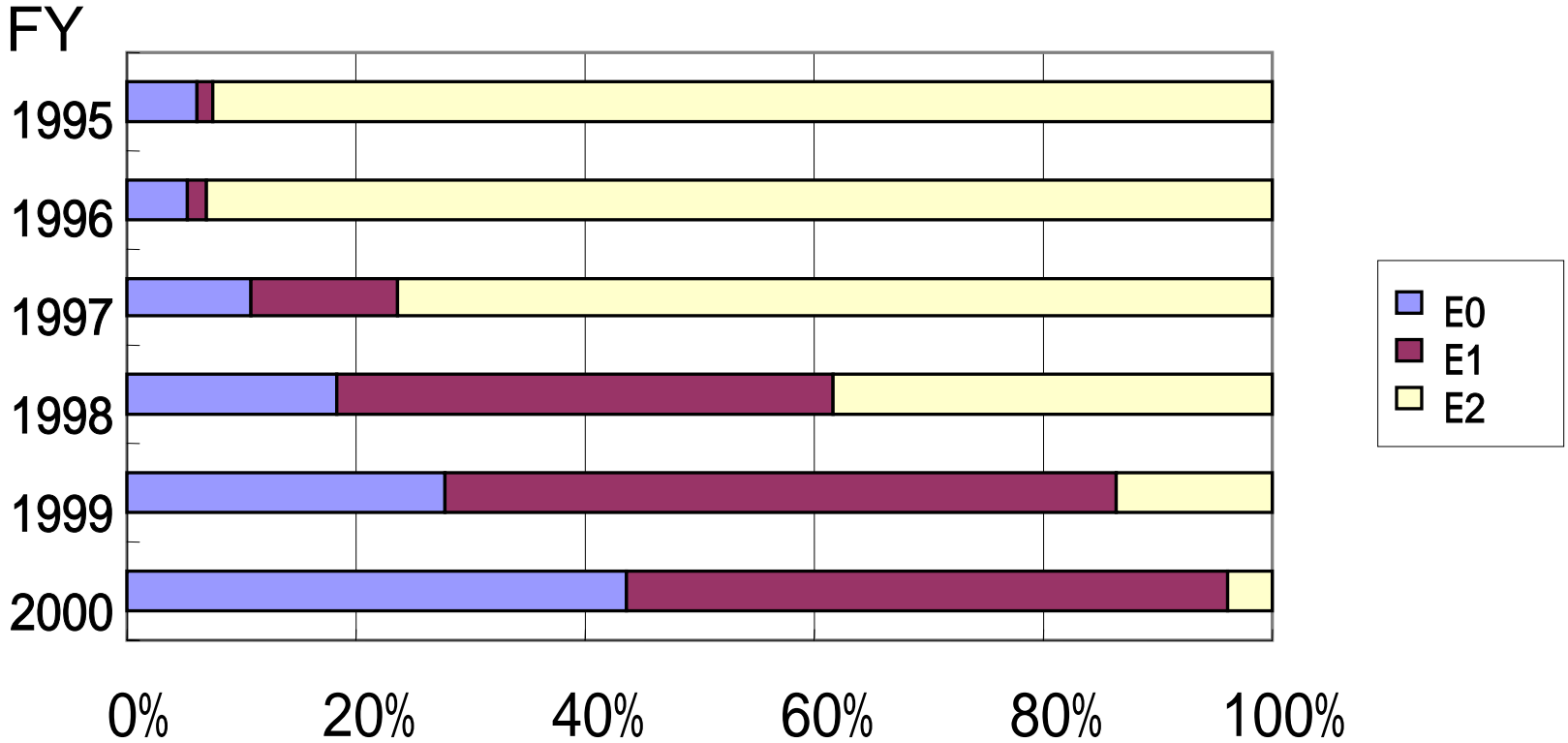
Model of Environmental Policy in Housing with Life-Cycle Systemic Design



4-2. Housing Performance Indication Scheme

- New voluntary labeling scheme has introduced in 2000 with standardized criteria to evaluate a wide variety of housing performance.
- Results of evaluation are indicated with ranks.
- The scheme enables consumers to compare the performance between houses in order to make a rational choice.
- **Existing houses can be applied since 2002** in addition to newly constructed houses.

4-3. Share of Low Formaldehyde Type Particleboards (E0,E1)



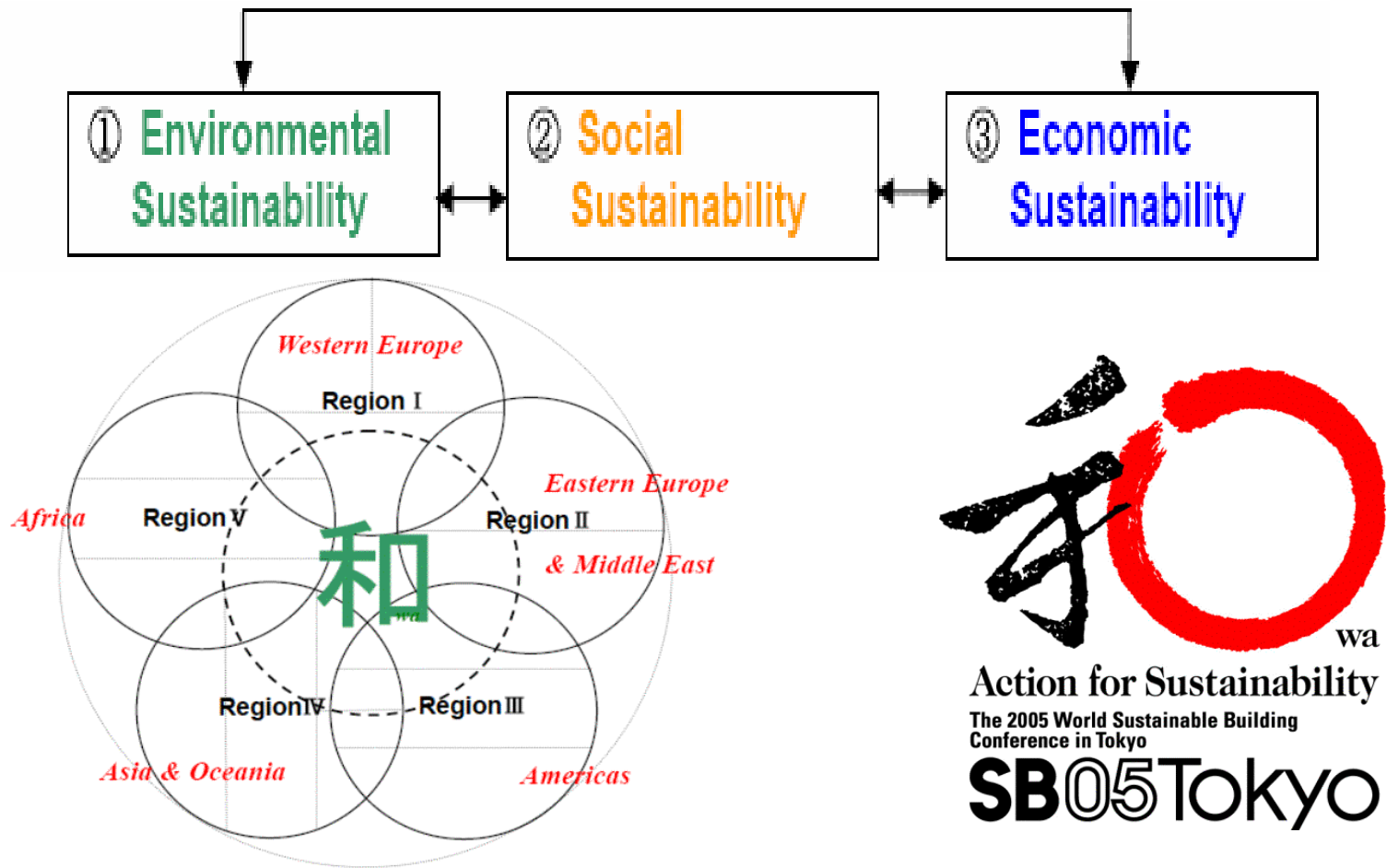
5. The 2005 World Sustainable Building Conference (SB05Tokyo)

5-1. Schedule of SB05Tokyo

Jul. 2004	Call for paper and poster (2nd announcement)
Sep. 2004	Deadline of the abstract submission
2004	Regional conferences - South America, Africa, China (Shanghai), East Europe Southeast Asia (Kuala Lumpur, Malaysia)
Jan. 2005	Deadline of the early registration
Apr. 2005	Deadline of the full paper submission
Sep. 27-29, 2005	The 2005 World Sustainable Building Conference in Tokyo

5-2. Concept of SB05Tokyo

Action for Sustainability



5-3. Topics of SB05Tokyo

A. Environmental performance

- 1) Energy use and climate
(green building design, energy efficiency upgrades, strategy for energy use reduction etc.)
- 2) Resource-productive material use
(closed loop, extended producer's responsibility, environmental declaration etc.)
- 3) Indoor Environment
- 4) Healthy buildings

B. Assessment

- 5) Assessment tools what for? -1
- 6) Assessment tools what for? -2

C. Technologies

7) Future frameworks for next technologies

(biomass, hydro-economy, adaptation to environmental change, etc.)

8) Management of technologies

(affordability of green technologies, renaissance of traditional technologies, cultural consideration, capacity building, etc.)

9) Sustainable structural systems

(vulnerability, reusability, damage control, performance-based design, etc.)

D. Stock

10) Adaptable buildings (open building, etc.)

11) Sustainable management of existing building stock

E. Regional context

- 12) Urban environmental system
- 13) Sustainable urban district regeneration
- 14) Rapid populated Mega-city

F. Stake holders

- 15) Procurements and process design
(program management, design briefing, commissioning and monitoring, etc.)
- 16) Win-win business scenarios for sustainability
(industrial ecology)
- 17) Partnership between stakeholders
(community involvement, risk communications, public private partnership, green consumers, etc.)
- 18) Design and implementation of effective and efficient policies

G. Ethics

- 19) Environmental ethics and buildings

5- 4. Proposed Keynote Speakers (draft)

Opening Session (the 1st day)

- Princess Takamado
- Minister of Land, Infrastructure & Transport of Japan

Plenary Session-1 (the 1st day)

- Murakami, Shuzo (Chair of the SB05 NCB)
- Okuda, Hiroshi (Chairman, Japan Business Federation)
- Töpfer, Klaus, (Executive Director of UNEP)
- A representative of SB04 Regional Conferences

Plenary Session-2 (the 2nd day)

- Sakamura, Ken (University of Tokyo, TRON PJ)
- Ernst von Weizsäcker (Member of Parliament, Germany)

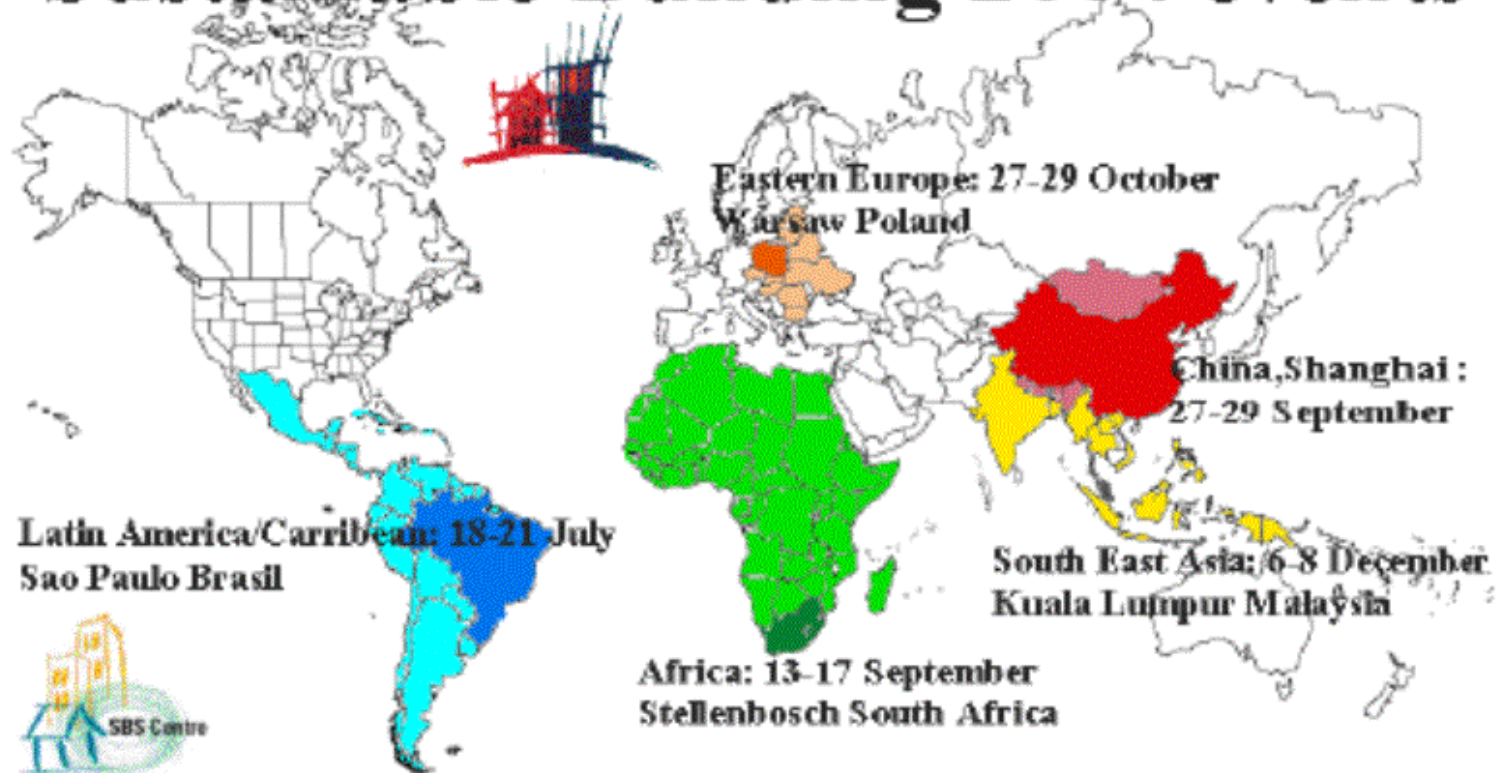
Plenary Session-3 (the 3rd day)

- Ando, Tadao (Architect)
- Rogers, Richard (Architect)

6. Regional Sustainable Building Conferences in 2004

6-1. SB04 Location




Sustainable Building 2004 events



6-2. Calendar of SB04 Events

2004		
January 15-16	Tokyo, Japan	Towards Sustainable Use of Building Stock OECD/IEA/UNEP: SB Policies meeting
May 2-7	Toronto, Canada	CIB World Buildings Congress During the Conference, topics such as Urban Sustainability, Social Aspects of Sustainable Construction, Sustainable Materials and Case Studies on Best practices in sustainable construction will be presented. Additional information will be available at http://www.cib2004.ca/
July 18-21	São Paulo, Brazil	Sustainable Building 2004 South America This conference is organized in preparation of the SB05 event presented at the end of this list. Additional information available at http://www.clacs04.org/ <i>Training/workshop: 22-29 July</i>
September 13-17	Stellenbosch, South Africa	Sustainable Building 2004, Africa This conference is organized in preparation of the SB05 event presented at the end of this list. Additional information available at http://www.sustainablesettlement.co.za/event/SBE2004/index.html
September 27-29	Shanghai, China	Sustainable Building 2004, China This conference is organized in preparation of the SB05 event presented at the end of this list. <i>Training/workshop: 24-26 September</i>



October 27-29	Warsaw, Poland	Sustainable Building 2004, Central and Eastern Europe This conference is organized in preparation of the SB05 event presented at the end of this list. Additional information available at http://www.itb.pl/SB04Warsaw <i>Training/workshop: 24-26 September</i>	 <p>Sustainable building 2004 27-29 October, Warsaw</p>
November 14-15	Maastricht, Netherlands	Building for a European future E-core, EU conference Additional information available at http://www.b4e.org/homepage.cfm	 <p>B4E BUILDING FOR A EUROPEAN FUTURE STRATEGIES & ALLIANCES FOR SUSTAINABLE CONSTRUCTION</p>
December 6-8	Kuala Lumpur, Malaysia	Sustainable Building 2004 South East Asia <i>Training/workshop: 29 November - 5 December</i>	
2005			
September 27-29	Tokyo, Japan	Sustainable Building 2005 http://www.sb05.com/	 <p>Action for Sustainability Sustainable Building 2005 SB05Tokyo</p>

2004	Places of SB04
July 18-21	Latin America (Sao Paulo, Brazil)
Sep.13-17	Africa (Stellenbosch, South Africa)
Sep.27-29	East Asia (Shanghai, China)
Oct. 27-29	Eastern Europe (Warsaw, Poland)
Dec. 6-8	Southeast Asia (Kuala Lumpur, Malaysia)