Global Environment Symposium

"International Deployment of Energy Efficiency Standards and Labeling Systems"

～Cooling Asia, Heating Asian Economics～

Assisting in the Development of Energy-saving Standards & Labeling Systems Now and into the Future

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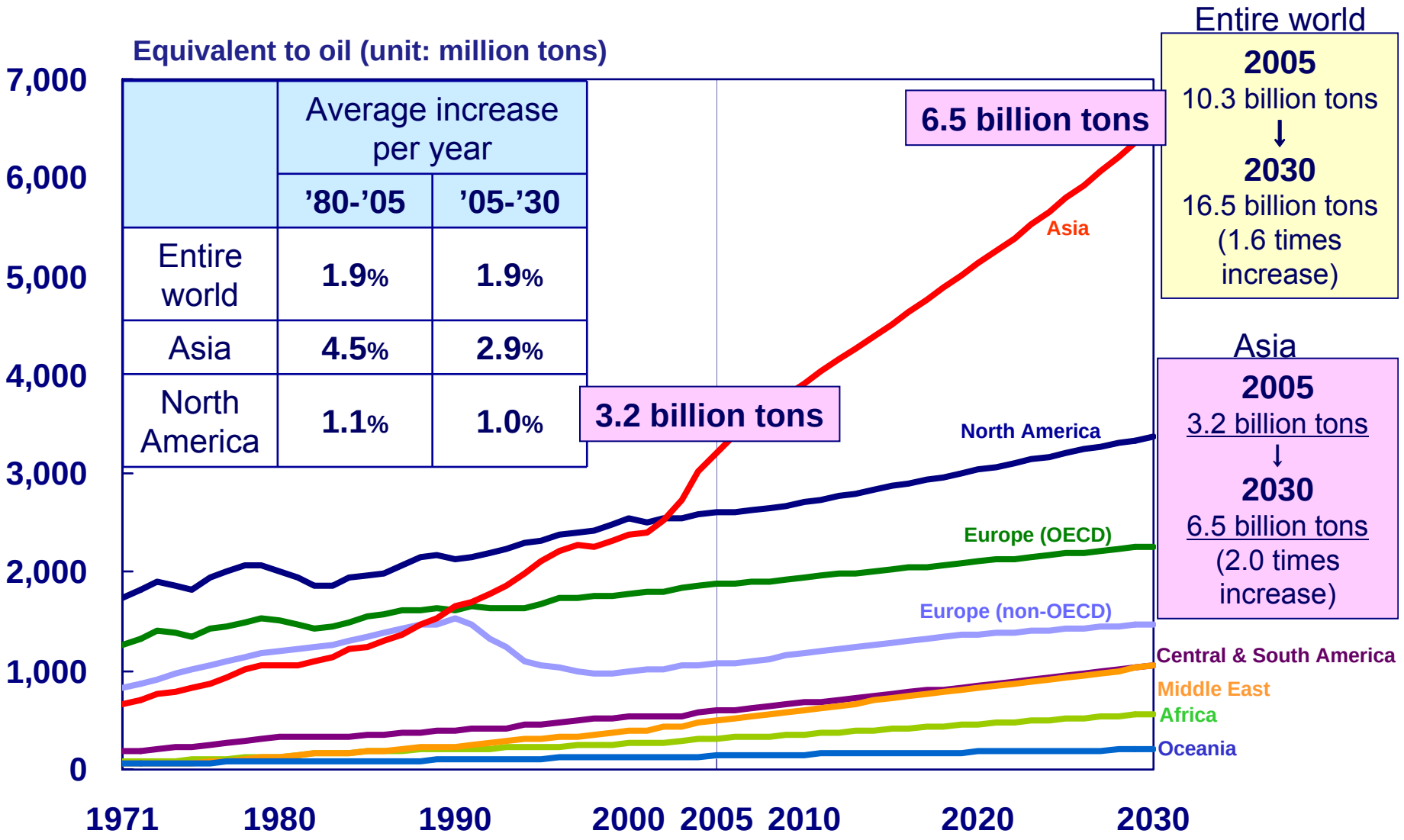
The Institute of Energy Economics (IEEJ), Japan

Hiroki Kudo
Director of Global Environment & Sustainable Development Unit
（kudo@tky.ieej.or.jp）

Summary of Presentation

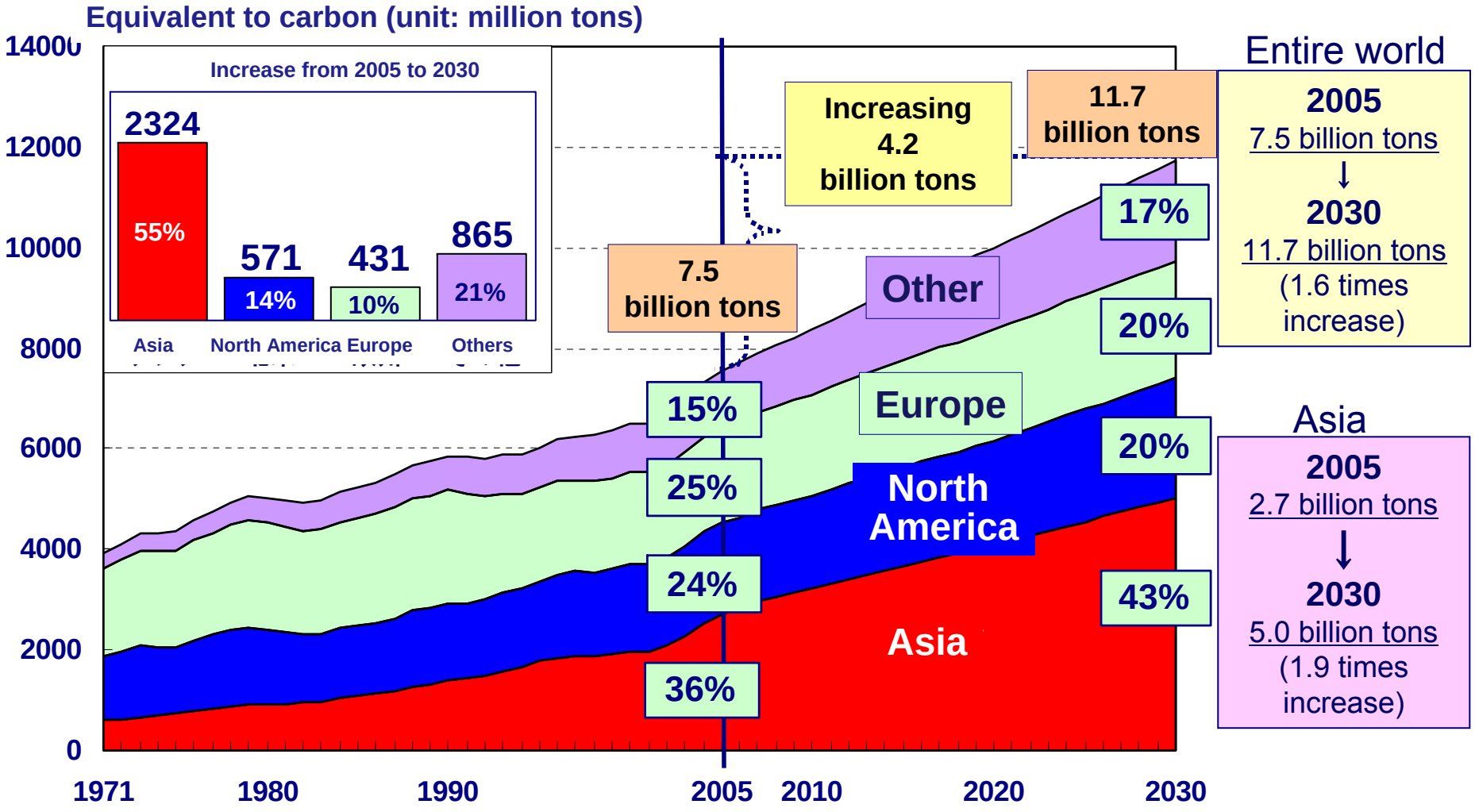
- With predicted population increases accompanying economic development in Asia in the coming years, it is becoming more and more important to tackle such issues as the growing demand for energy and energy security, and regional/global-scale environmental problems.
- In order to solve energy and environmental problems together, the introduction and steadfast implementation of energy-saving policies by each country is both effective and indispensable. Therefore, an examination into approaches for realizing such policies is required.
- Japan has so far nurtured and accumulated energy-saving policies and technologies. Ways to utilize such accumulated knowledge to help Asian countries develop energy-saving policies—specific cooperative approaches—are now being examined.
- This project aims at developing an understanding of each country's current situation, focusing attention on S&L in the field of home appliances, examining approaches to—and implementing—Japan's cooperation with other countries, making concrete contributions to their policy deliberation processes.

World Primary Energy Consumption (by region)



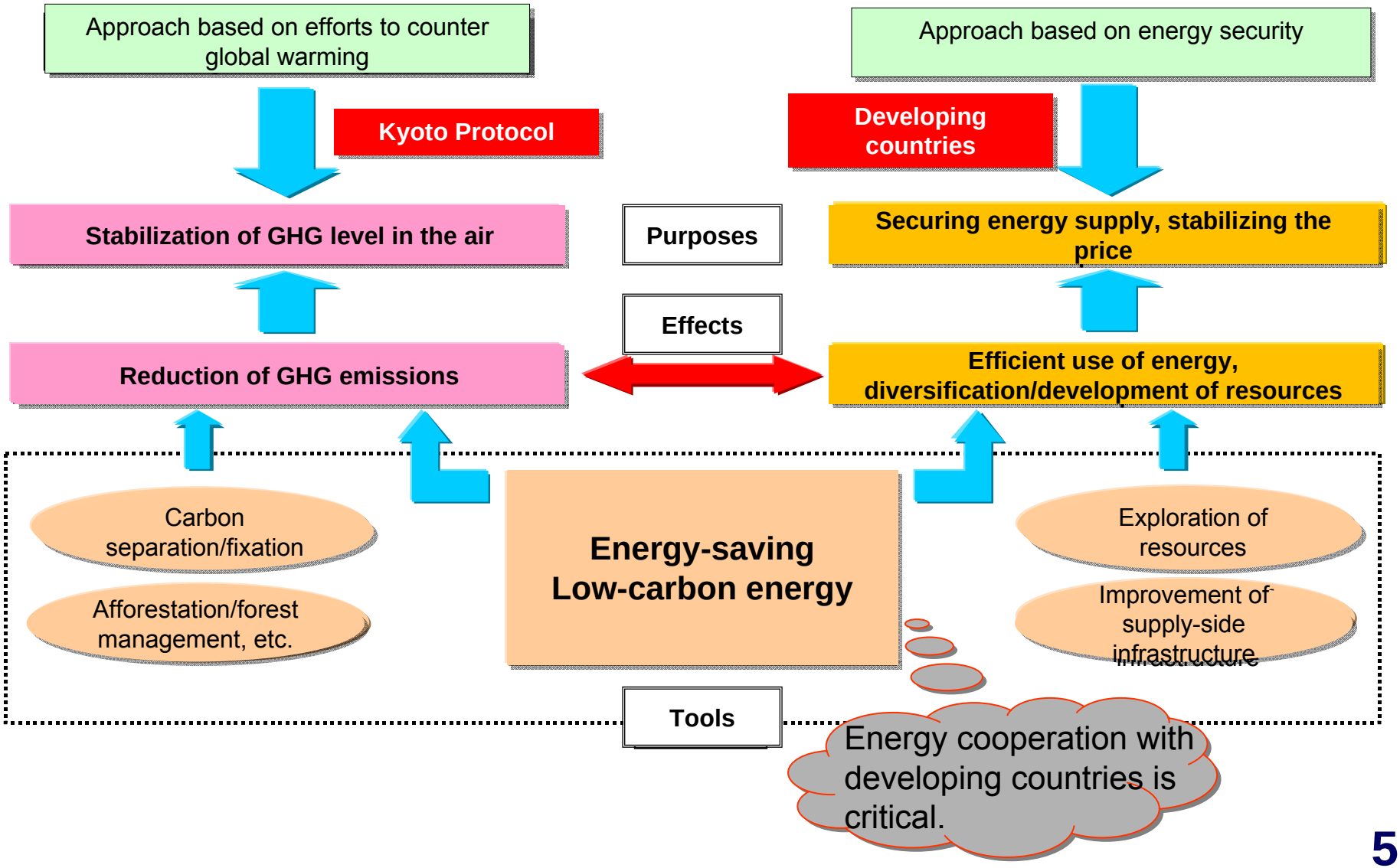
Source: Excerpts from Reference Cases, Asia/World Energy Outlook 2007. IEEJ

CO_2 Emissions (entire world)



Source: Excerpts from Reference Cases, Asia/World Energy Outlook 2007, IEEJ

Efforts to tackle global warming and energy-related issues



Reductions in CO_2 emissions through energy-saving in Asian countries

Unit: % per year

		Asia (except Japan)			China (2005-2030)		India (2005-2030)	
		1980-2005	2005-2030					
			Reference	Improvement	Reference	Improvement	Reference	Improvement
CO_2 Emission	ΔC	5.2	2.8	1.7	2.4	1.1	3.8	2.5
Decarbonization	Δ(C/E)	▲ 0.2	▲ 0.4	▲ 0.8	▲ 0.6	▲ 1.0	▲ 0.5	▲ 0.8
Energy-saving	Δ(E/Y)	▲ 1.2	▲ 2.0	▲ 2.7	▲ 3.1	▲ 3.9	▲ 1.7	▲ 2.5
Economic development	ΔY	6.7	5.3		6.2		6.1	
Basic unit improvement ratio (%)		▲ 26	▲ 39	▲ 50	▲ 54	▲ 63	▲ 34	▲ 48

Changes in CO_2 emissions broken down into three factors

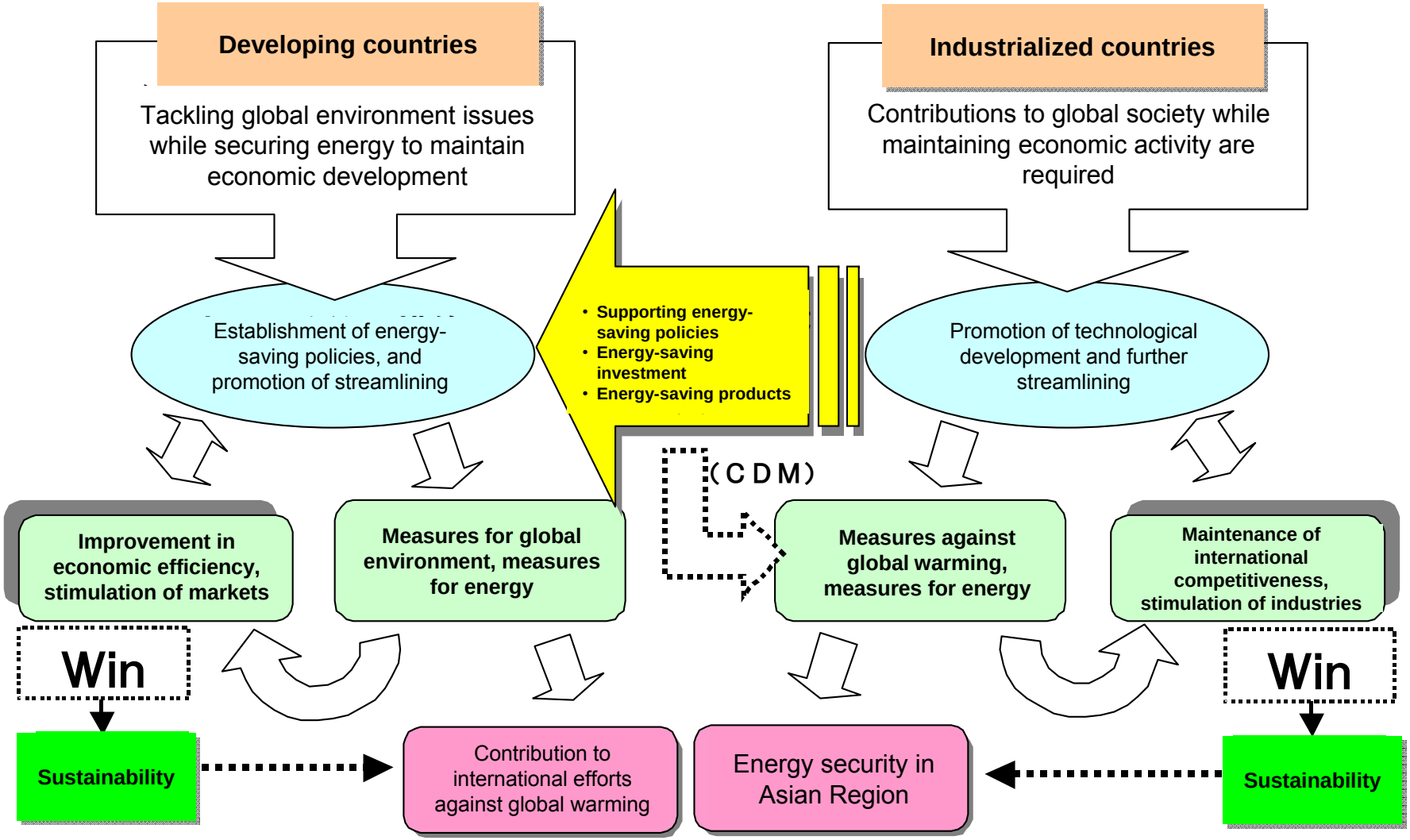
$$C = (C/E) * (E/Y) * Y$$

$$\Delta C = \Delta(C/E) + \Delta(E/Y) + \Delta Y$$

Decarbonization/Energy-saving/Economic development

Source: Technology Improvement Cases, Asia/World Energy Outlook 2007, IEEJ

Lasting relationship in the fields of energy-saving and the environment



Assistance Project for Establishing Energy-saving Standards & Labeling System

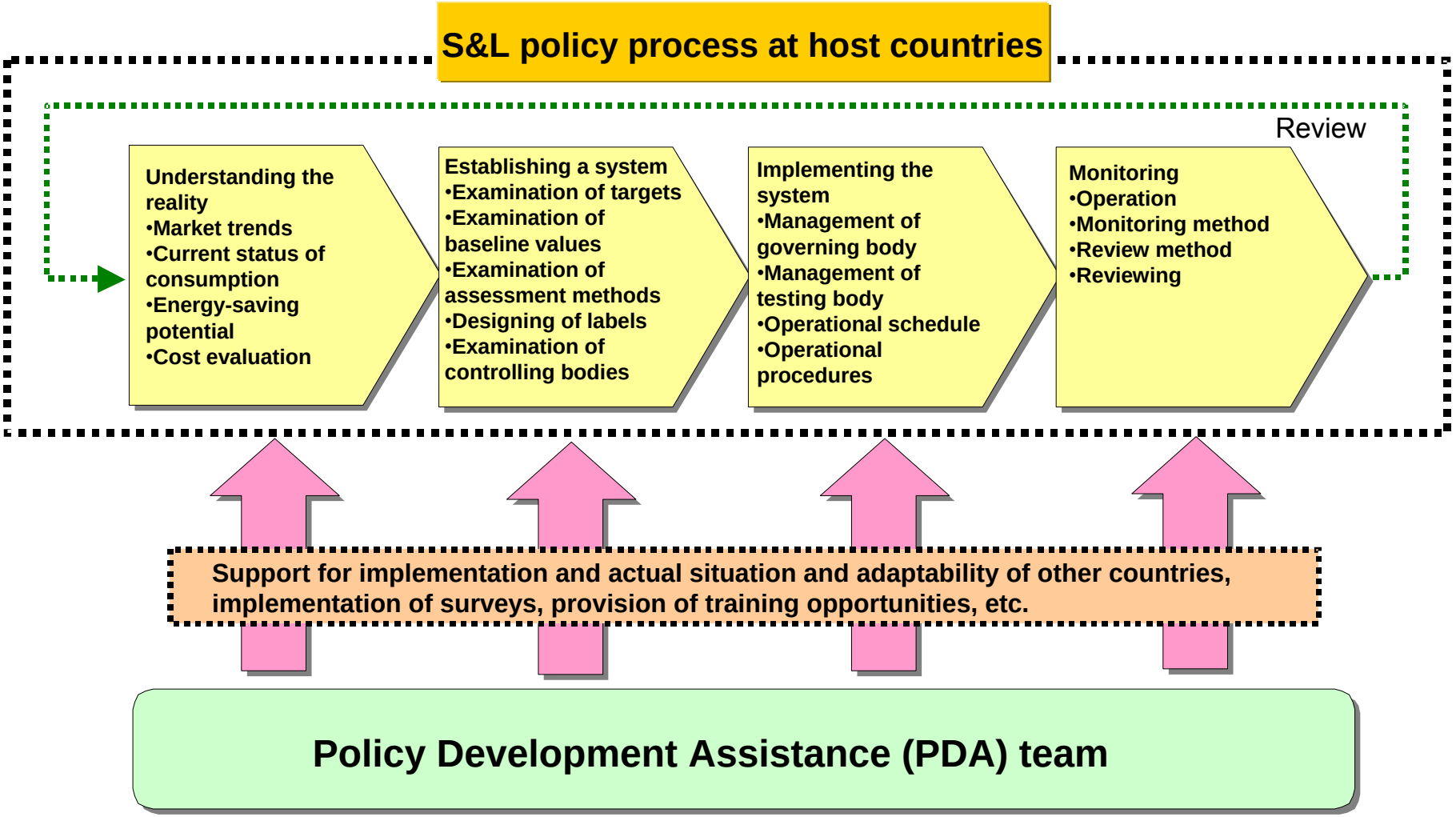
- Focusing on S&L (Standards and Labeling system) in the field of home appliances

- Providing assistance in cooperation with CLASP, an organization that is well-experienced in global social issues in the relevant field

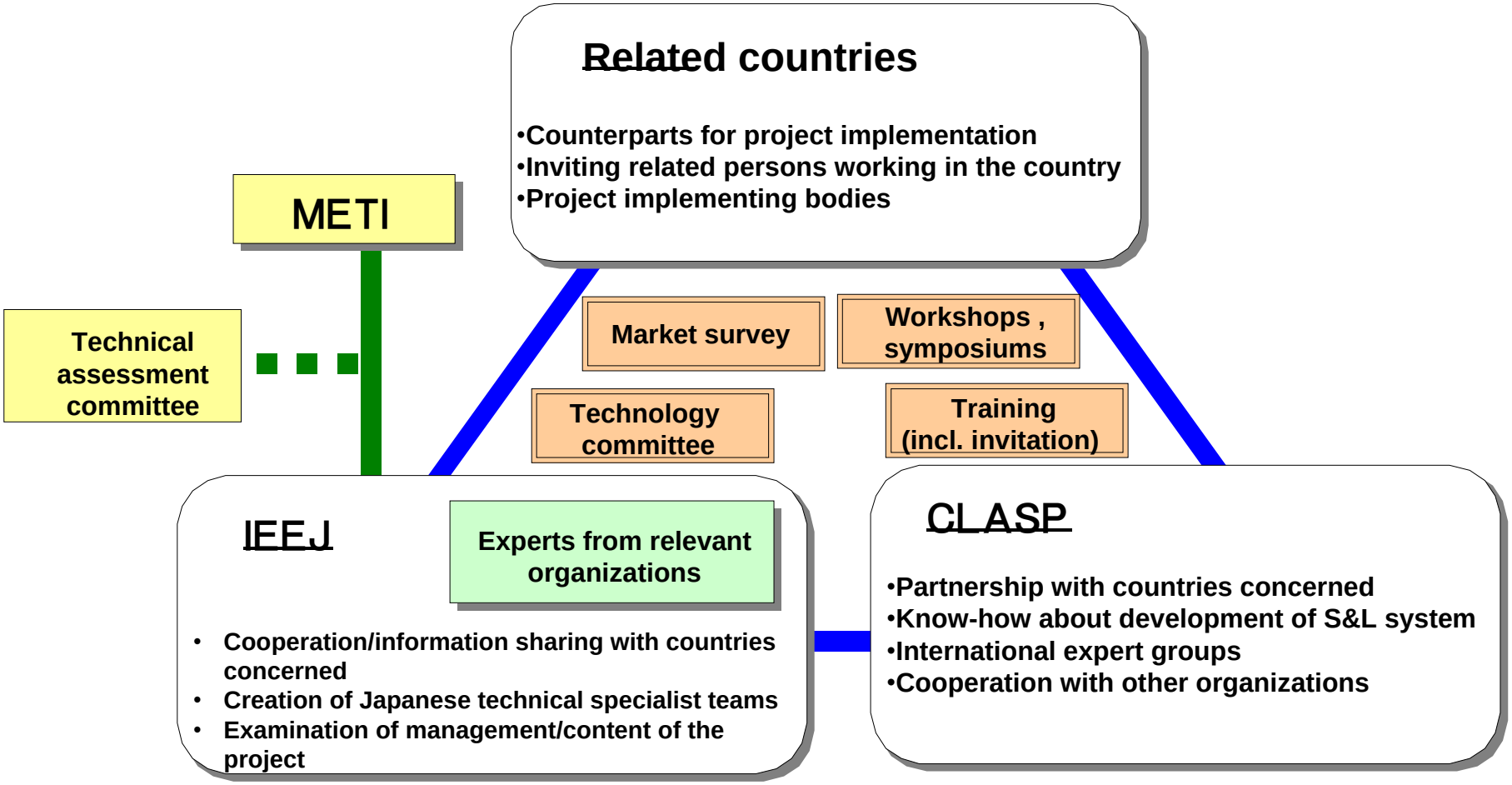
- Implementing surveys, information/opinion exchanges, training, and other activities that will contribute directly to establishment/consideration of S&L systems in host countries in line with their needs

- Implementing a series of measures in support of consideration/operation of systems, while trying to establish partnerships that enable consideration/implementation of new fields of cooperation

S&L System Development/Implementation Process and PDA



Project Participants and Tasks



Contents of the Project 2006−2008

	2006	2007	2008
China	1) Evaluation of policy efficiency of China's home appliance S&L system 2) Current situation and problems with China's S&L system 3) Problems with introducing and promoting goals for refrigerator and air conditioner standards	1) Confirmation of manufacturers' compliance with self-reported labeling data and MEPS 2) Assistance for changing refrigerator label standards	1) Assistance for changing air conditioner standards in China (Joint research into unified standards for inverter air conditioners)
India	4) Outline of India's labeling system		
Vietnam		Field survey in Vietnam (Survey for assistance potential)	1) Assistance for the development of Vietnam's S&L monitoring system 2) Assistance for refrigerator/air conditioner testing facilities in Vietnam

Details of China Project 2008

	Outline	Purposes
(1) Fact-finding survey on how families use air conditioners in China	Setting up meters to measure power consumption in 10 major cities including Guangzhou, Beijing and Shanghai, we will survey cumulative power consumption by air conditioners and usage patterns.	We will collect basic data for setting up heating-time standards. Although air conditioners are sometimes used for heating in each region in China, heating-time standards have not yet been established. We will set up heating standards for use as energy performance standards that reflect actual usage.
(2) Difference in power consumption between inverter and non-inverter air conditioners	We will compare/analyze existing Test Standards including EER,SEER,APF, etc., and study/analyze Test Standards suitable for China.	At present, different Test Standards are applied to inverter air conditioners (variable speed) and to non-inverter ones (constant speed). Thus, consumers do not get correct information about the energy-saving performance of inverter air conditioners. Therefore, we will examine Test Standards and labeling standards in order to make it possible to compare these two different types of air conditioners.
(3) Round Robin Test	We will purchase three samples of AC2 from the market and conduct Round Robin Tests at six independent test facilities (approved by CNCA), including ones in Hefei, Guangzhou and Shanghai. After the tests in China, sending the same samples to Japan, we will conduct the same tests in Japan too.	Periodic monitoring plays an important role in promoting compliance with standards. However, if test results are different from one test facility to another, the reliability of monitoring results is conspicuously lowered. Therefore, based on results of Round Robin Tests, we will examine degrees and causes of—as well as countermeasures against—differences in results between test facilities.

A team of Japanese experts is providing technical assistance for the project.
(In 2008, three meetings were held with CNIS).

Vietnam Project 2008

	Outline	Purposes
Market research on air conditioners	We will collect data by interviewing manufacturers and distributors of air conditioners	As Vietnam does not have enough basic data necessary for setting up and implementing standards, we will arrange data, and support them in setting up and implementing standards that closely reflect reality.
Assistance of test facilities (Training)	We will support training for laboratory staff in Hanoi and Ho Chi Minh City	Capacity Building at performance test facilities is important for promoting compliance with standards and upgrading the reliability of the system.

*** Workshops will be held in Hanoi, Vietnam, on March 17, 2009**

In direct cooperation with persons in charge of policy in the target developing countries, we will clarify barriers to the introduction and implementation of S&L policies, provide money and know-how for improving the efficacy of policies, and promote dissemination of energy-saving appliances. For us, this is a new type of effort.

Expectations and its Future Developments

- Through the assistance project, helping to enhance the effectiveness of S&L and energy-saving policies in host countries

- Through assistance, deepening mutual understanding of Japan's policies, technology, etc. (channel building) while aiming to develop opportunities to use them

- Through long-lasting partnerships, aiming to expand target fields and related countries for contribution and to establish bases upon which Japan can reinforce its opportunities to contribute in the fields of energy and the environment in Asian countries.

ご静聴有り難うございました

谢谢您

Cảm ơn bạn

ขอบคุณ

Terima kasih

धनयवद

Thank you