

SCP and Climate Change

- JICA's Cases -

**DAC-UNEP Workshop on Sustainable Consumption and
Production for Development**

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Facts & Figures of JICA

- **Staff:**
 - 1,664 staff. They are supplemented at any one time by thousands of Japanese experts and young and senior volunteers on both short-term and long-term contracts.
- **Operational Volume:**
 - It is the world's largest bilateral development assistance agency with a size of estimated \$10.3 billion dollars.

Comparison with other Major Donor Agencies

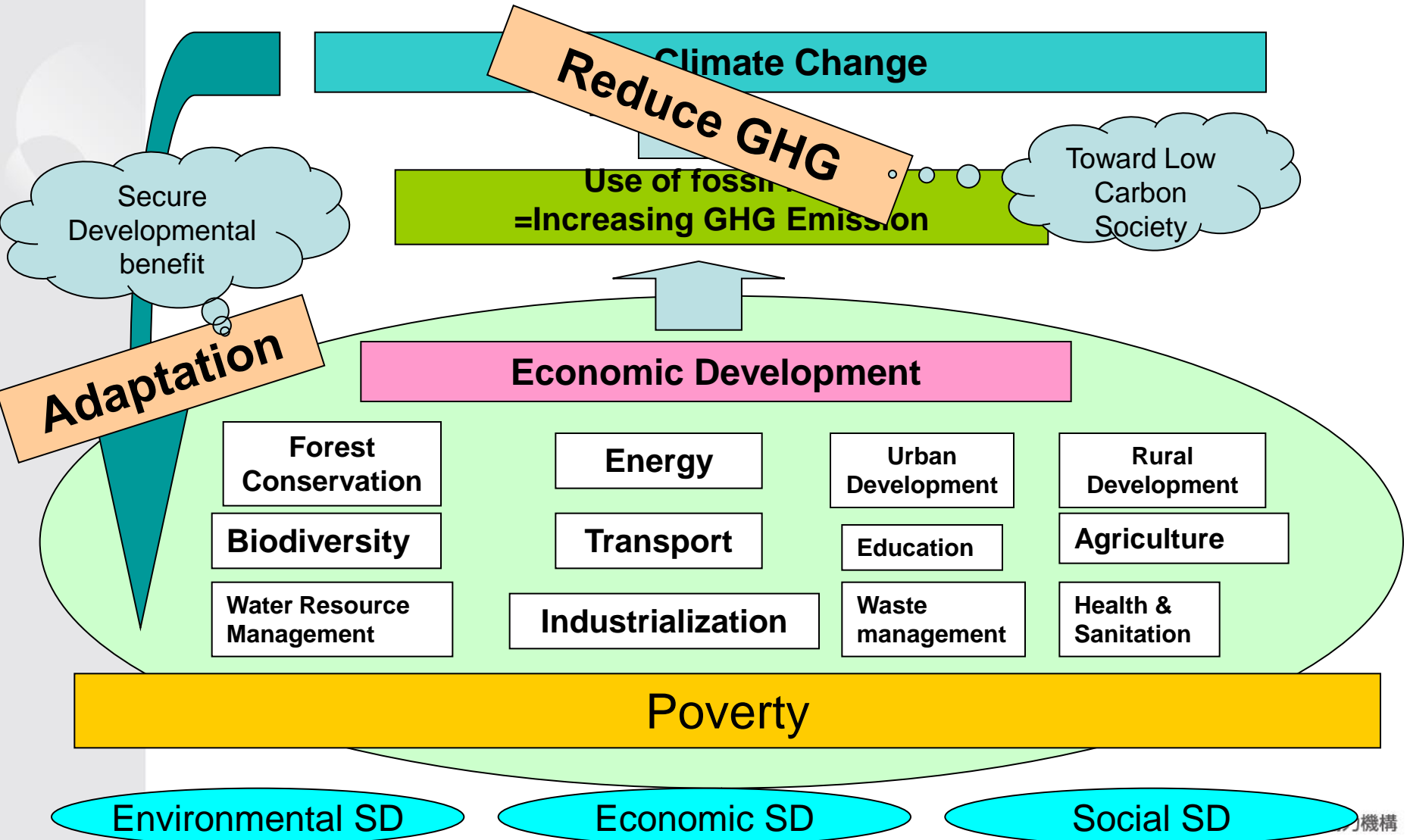
World Bank	Number of Staff	8,600
	Volume of Operation	US\$19,634mil
Asian Development Bank	Number of Staff	2,443
	Volume of Operation	US\$6,851mil
USAID	Number of Staff	2,227
	Volume of Operation	US\$3,976mil
<i>New JICA</i>	Number of Staff	1,664
	Volume of Operation*	US\$10,280mil

Exchange Rate used: JPY100.10/US\$ (IFS rate for 2008 March end)

*estimated based on FY2008 budget (full year)

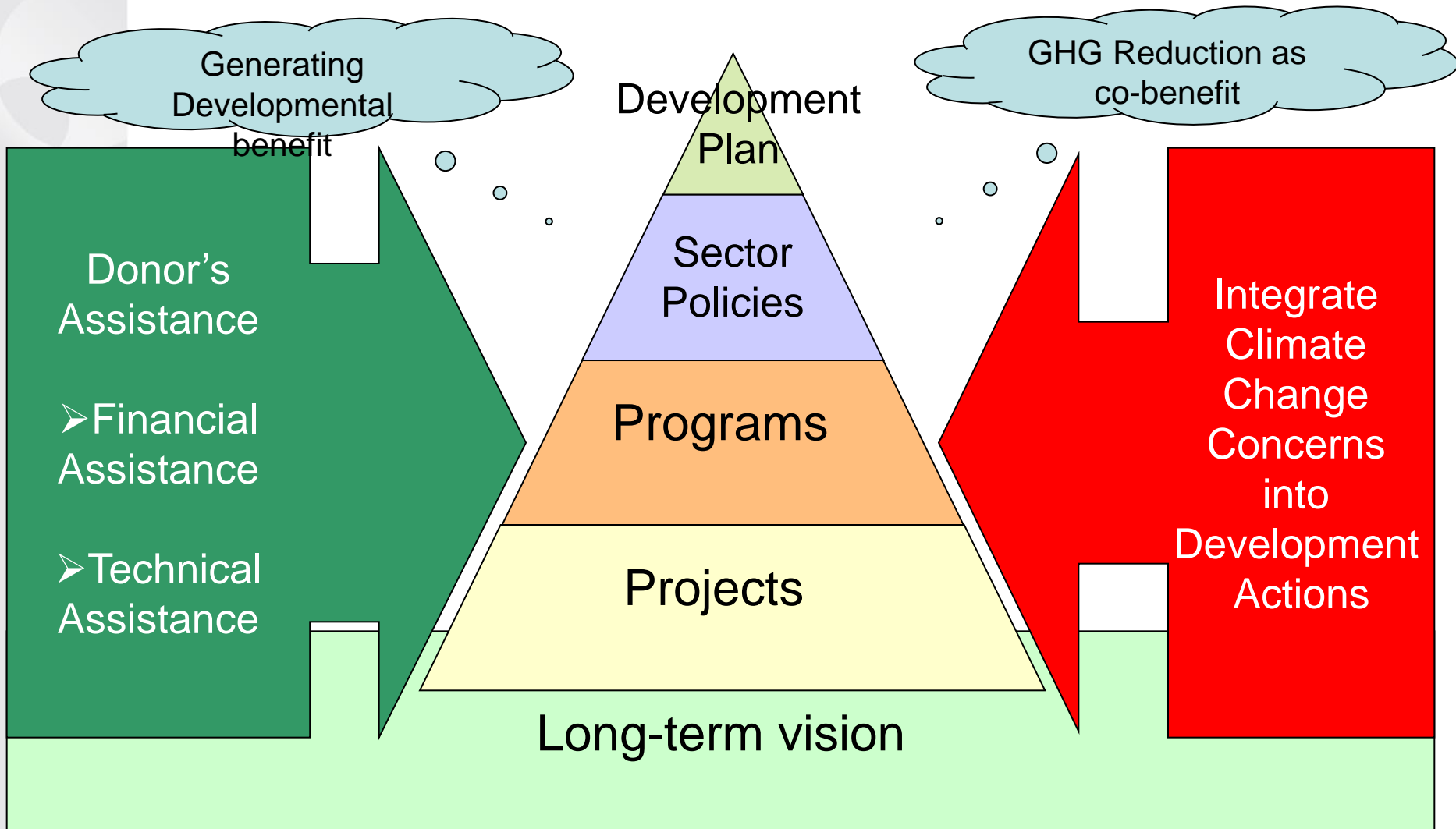
Development Agenda and Climate Change

- Toward “Low Carbon Society”



Climate change benefit as co-benefits of development

Cooperation for Sustainable Development from various levels



Toward Low-Carbon Development

Hypothesis : 「Society with high resource productivity=Low Carbon Society

- Seeking possible style on production and consumption, Instead of consumeristic development.
- It is fundamentally recognized that increase of energy consumption and GHG emission in the lifecycle has been led by Increase of production/consumption of goods, that is, resource saving and low carbon development are deeply related.

Breakdown of Kaya Identity in resource consumption aspect

$$\text{CO}_2\text{Emission} = \text{POP} \times \frac{\text{GDP}}{\text{POP}} \times \frac{\text{Energy Consumption}}{\text{GDP}} \times \frac{\text{CO}_2\text{Emission}}{\text{Energy}}$$

$$\frac{\text{CO}_2\text{Emission}}{\text{GDP}} = \frac{\text{Resource Cons}}{\text{GDP}} \times \frac{\text{Energy Cons}}{\text{Resource Cons}} \times \frac{\text{CO}_2\text{Emission}}{\text{Energy}}$$

Identification of factors to increase CO₂Emission by economic growth and its forecast

Factor analysis of CO₂Emission focus on resource consumption

Analysis on possible Leapfrogging development path for dev'ing countries

Design of Social – Economic system with high resource productivity

Possibility on Compact city,

“Rental/Lease society
Service economy, use of ICT

Quantification of possible reduction of energy consumption by recycle use and/or cascade use of resource

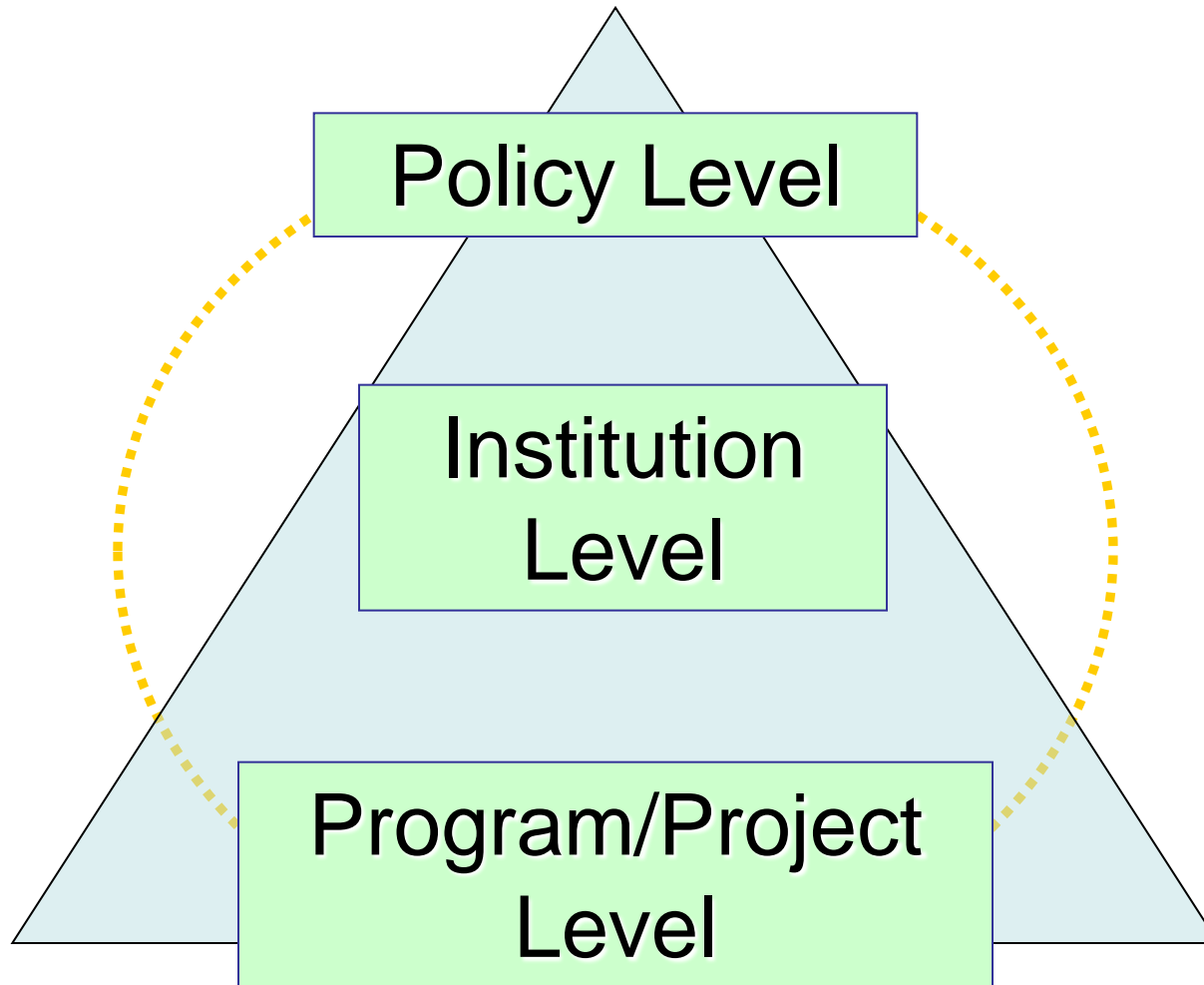
Resource recovery from waste and stocks

International division of labour and International material cycle

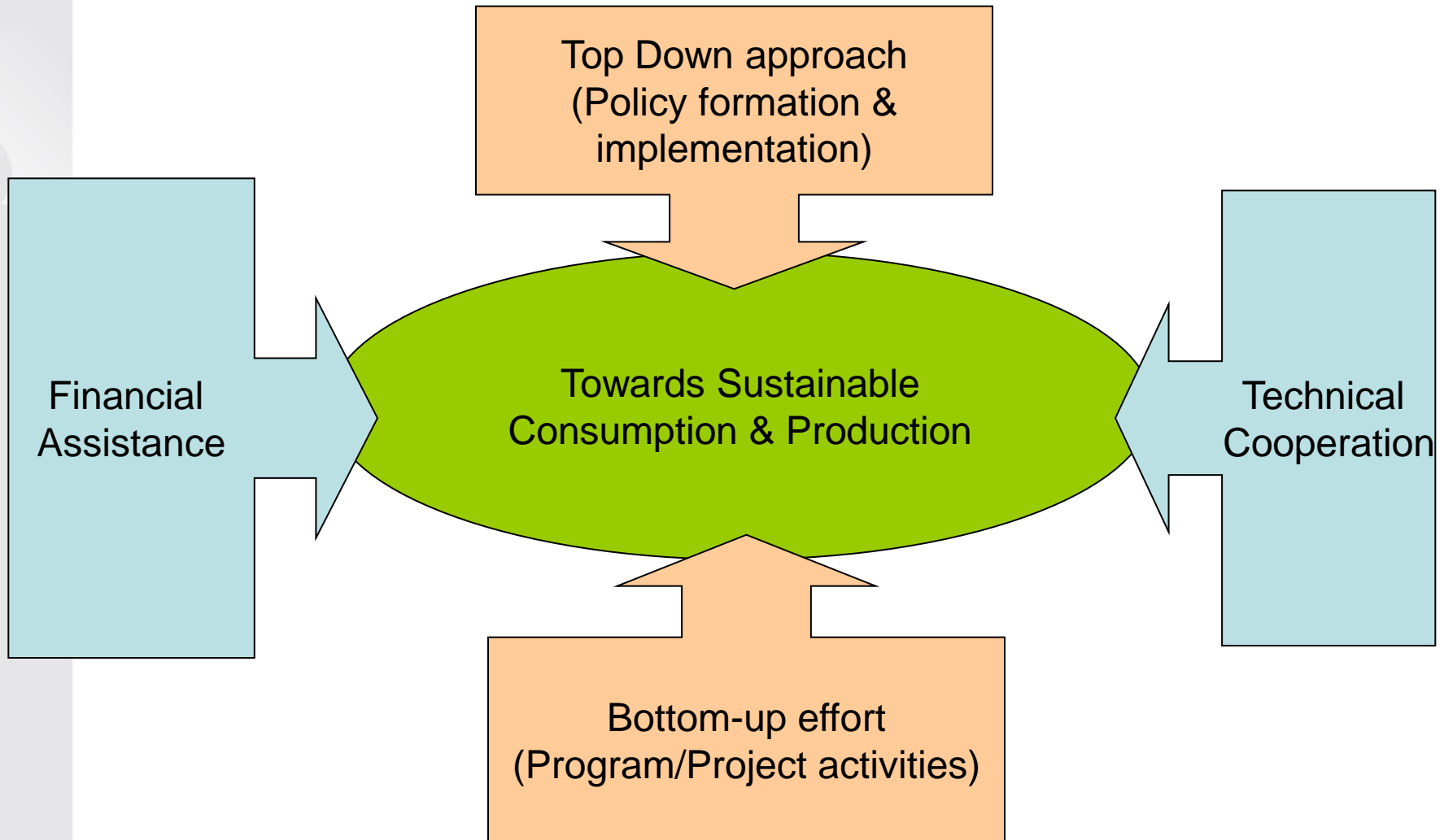
Possibility of CO₂Emission Reduction by alternative resource use (esp. focus on Renewable resources)

Alternate fossil fuels by use of biomass, energy from waste

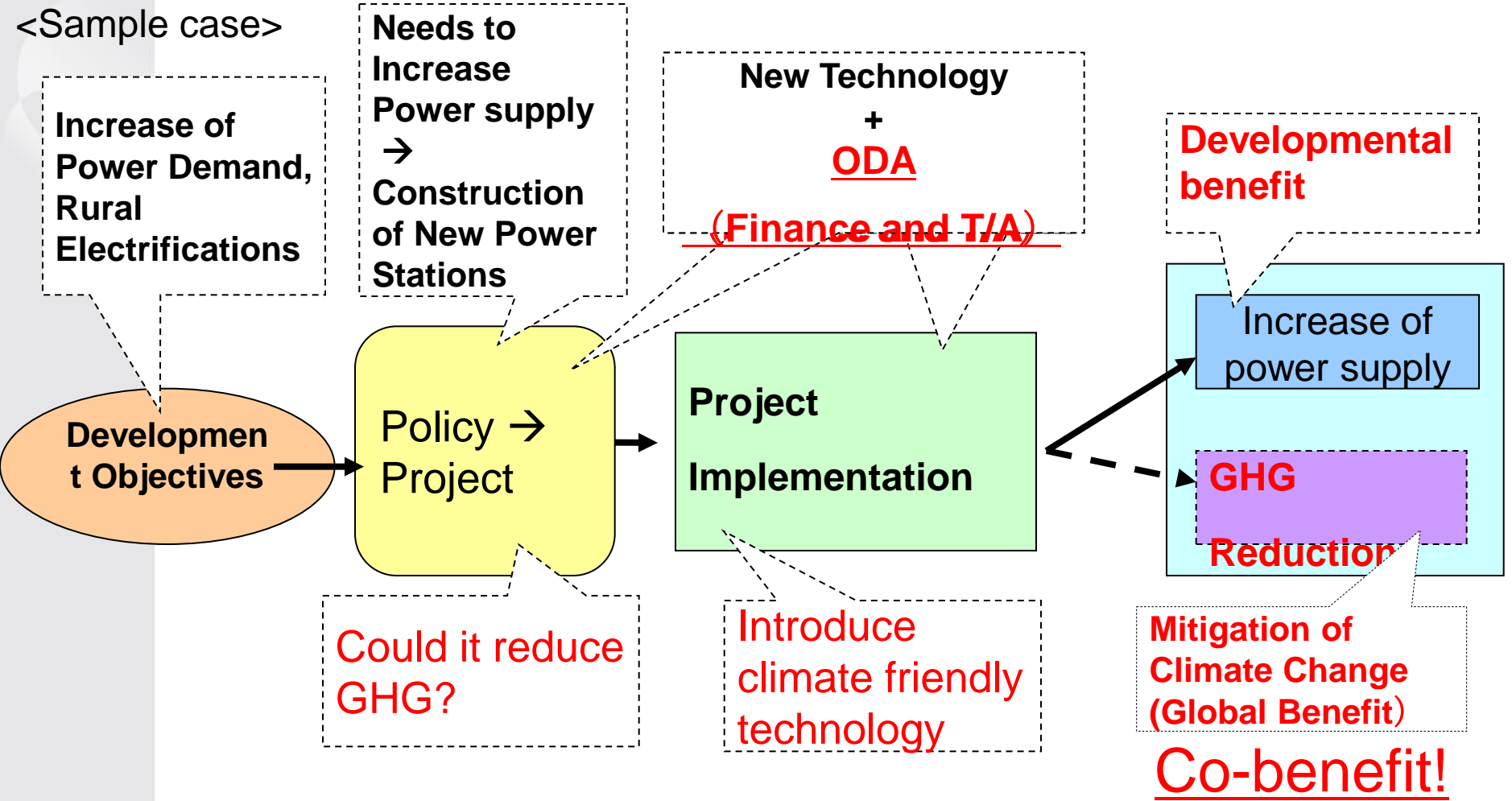
JICA's approach



JICA's approach



To generate “co-benefit”



Case program (1): Top-down approach (Policy formation & implementation)

Example of the Policy Matrix formulated based on the policy dialogue

Pillar 1: Mitigation

1.1: LULUCF
(Land Use, Land Use Change and Forestry)

- Reforestation
- REDD
- Forest management

1.2: Energy

- Power plant
- Industry, domestic and commercial
- Others

Pillar 2: Adaptation

2.1: Water Resource Management

2.2: Water Supply and Sanitation

2.3: Agriculture

Pillar 3: Cross-cutting Issues

3.1: Understanding the Impact of Climate Change

3.2: Mainstreaming Climate Change in the National Development Program

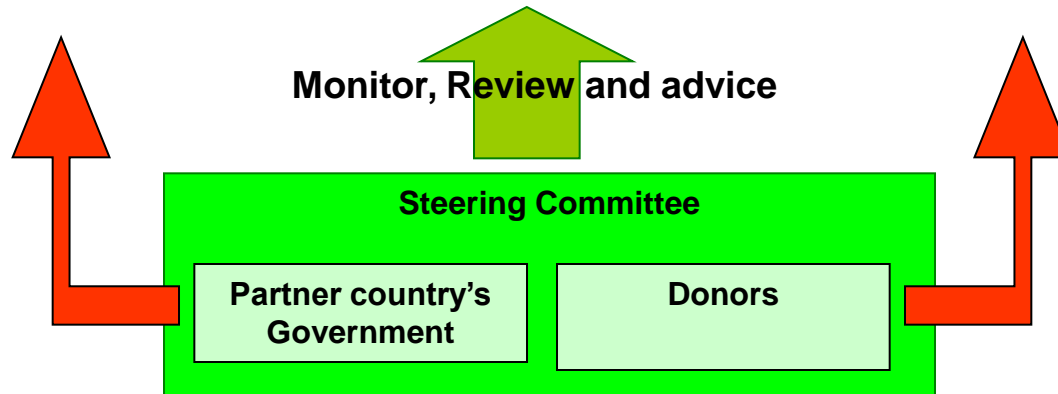
3.3: CDM

3.4: Co-Benefit

3.5: Fiscal Incentive

3.6: Early Warning System

Coordination among line ministries



Case program(2) Demand side approach

<Promotion of Electricity Energy Efficiency Project>

– Project objective:

- To build sufficient institutional capacity in Thailand's power sector, and energy-related private sector, so as to deliver cost-effective energy services throughout its economy,
- To pursue policies and implement actions which would lead to the development, manufacture and adoption of energy efficient equipment and processes within Thailand.

– Impact of the Project

- Approx 4,160 GWh of total energy consumption were saved
- Over **3 million t-CO2 was reduced.**
(During 8years project period)



US\$25m	US\$9.5m	US\$5.4m
JICA	WB/GEF	Gov of Australia

Co-finance

EGAT DSMO

- **Implement Demand Side Management Program**
 - High energy efficient home appliances, light
 - Green Building Program
 - Thermal Energy Storage
 - ESCO

<The Project on the Practical Energy Management Training Center>

- Management system for Practical Energy Management Training Center
- State examination system for PRE
- Pre-examination training courses
- Implementing structure for pre-exam training
- PRE support system

Case project(3) Production side approach <Viet Nam: EE &RE promoting project (EEREP)>

Current Situation of Energy Sector in Viet Nam

Rapid Increase of Energy consumption since 1986

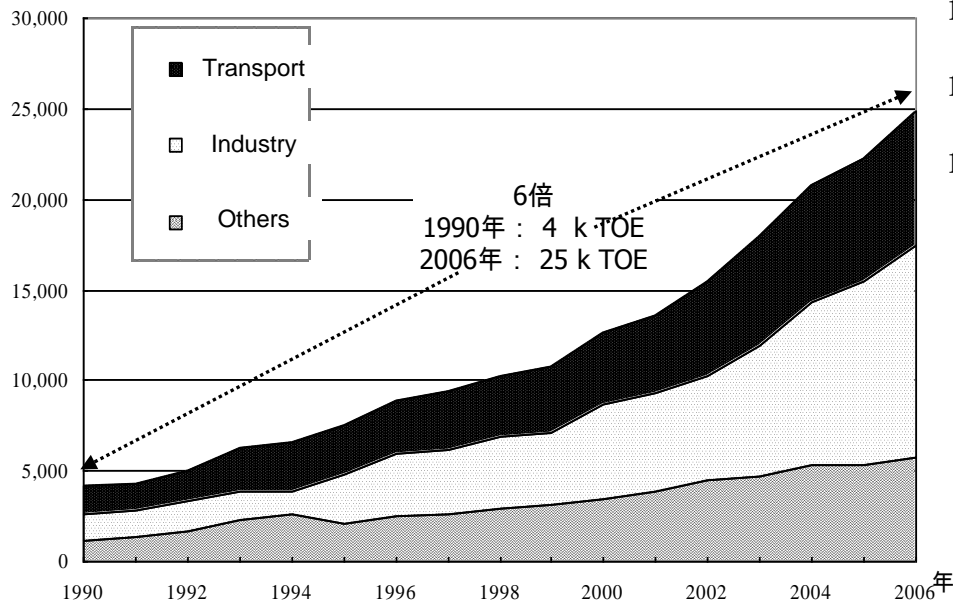
→Appx 8% of GDP growth

(Energy consumption marked 6 times from 1990 to 2006 due to its Economic growth)

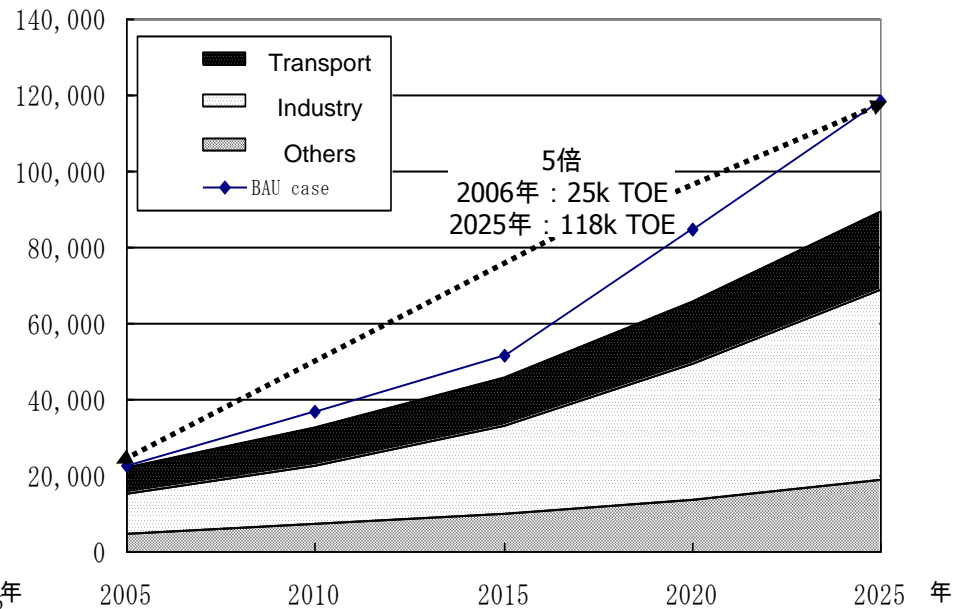
→This may continue because of its rapid economic growth

(Energy consumption in 2025 is expected to be 5 times larger than that of 2006)

k TOE Trend of Energy Consumption in Viet Nam (1990-



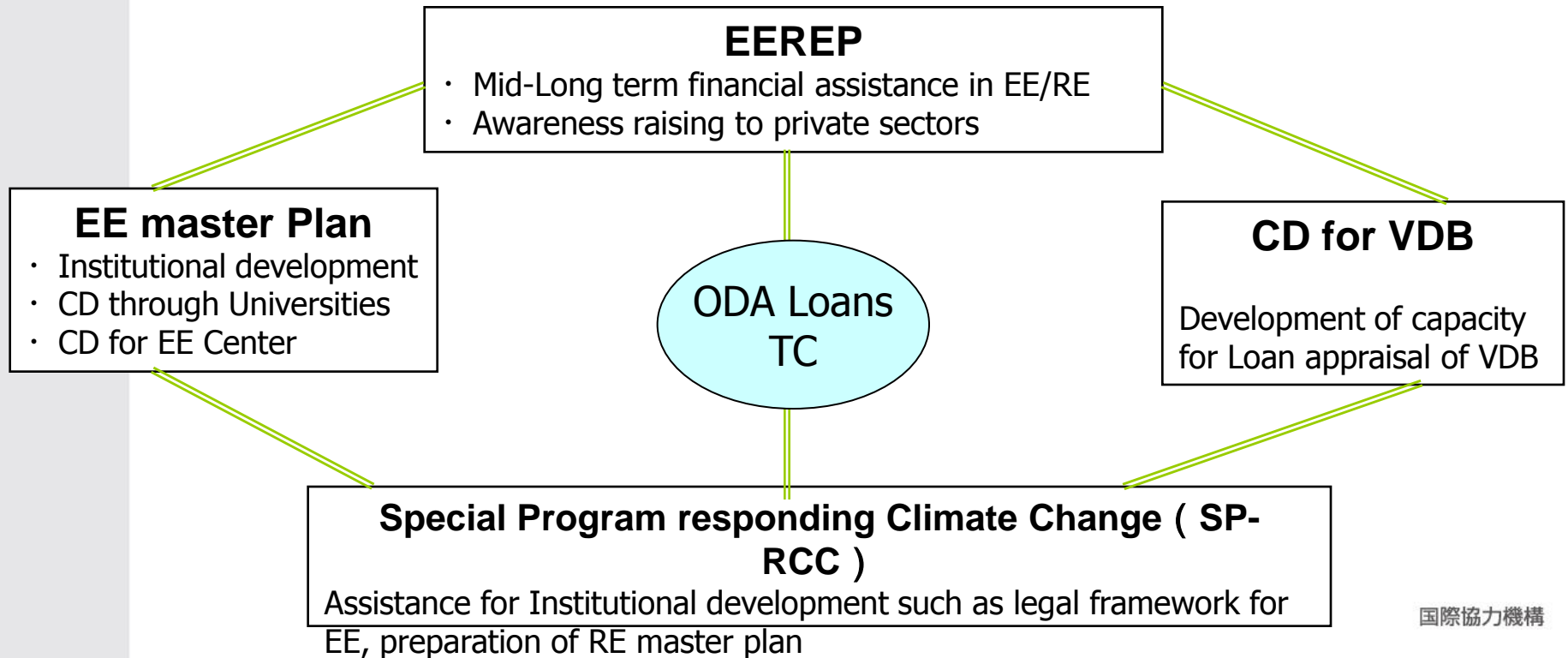
k TOE Estimated Energy consumption in Viet Nam (2005-



Case program(3) Production side approach <Viet Nam: EE & RE promoting project (EEREP)>

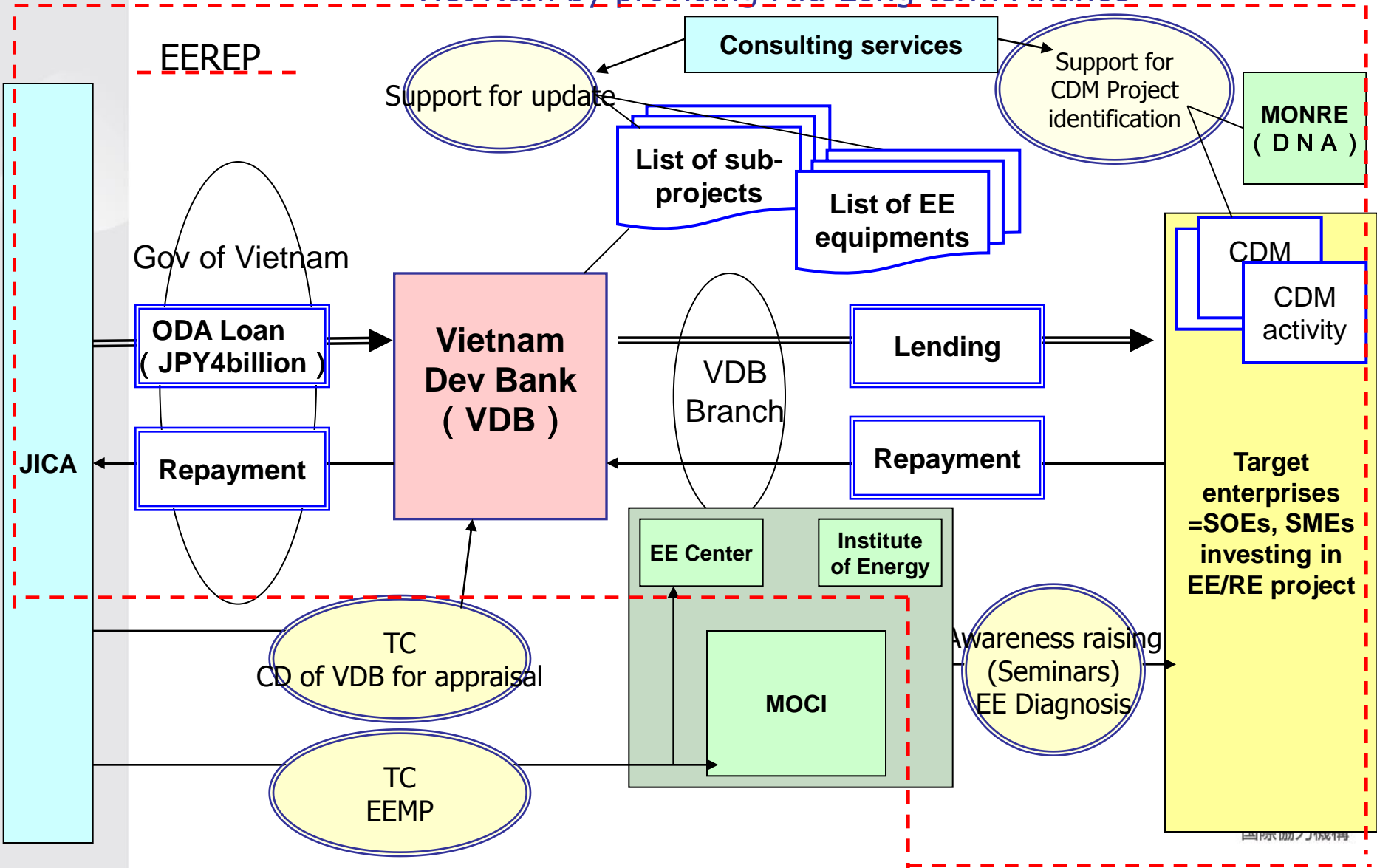
Issues on promotion of EE/RE in Viet Nam
= Lack of institution, awareness, finance and capacity

JICA' assistances (Institutional development, awareness raising, financial assistance & capacity development)



Outline of EEREP

Objective : Assist implementation & promotion of EE/RE by private sector in Viet Nam by providing Mid-Long term Finance



Conclusion

- Green Growth/Economy and SCP can be achieved in a same way.
 - Approach through development cooperation is a key for implementation of SCP.
 - Paris Declaration & Accra Agenda for Action are fundamental concepts
 - Ownership of developing countries
 - Alignment (Development policy, Country system-Green public expenditure & Green Procurement)
 - Capacity Development
- Integration of SCP into development policy is needed.
- Well-coordinated Policies (Top-down) & Programms/projects (Bottom-up) can change both consumption & production patterns in sustainable manner.