



# Needs for Regional Collaborations: How to Establish an Asia League

Sirintornthep Towprayoon

Joint Graduate School of Energy and Environment  
Center of Excellent on Energy and Climate Change  
King Mongkut's University of Technology Thonburi



# Low-carbon society scenario research:

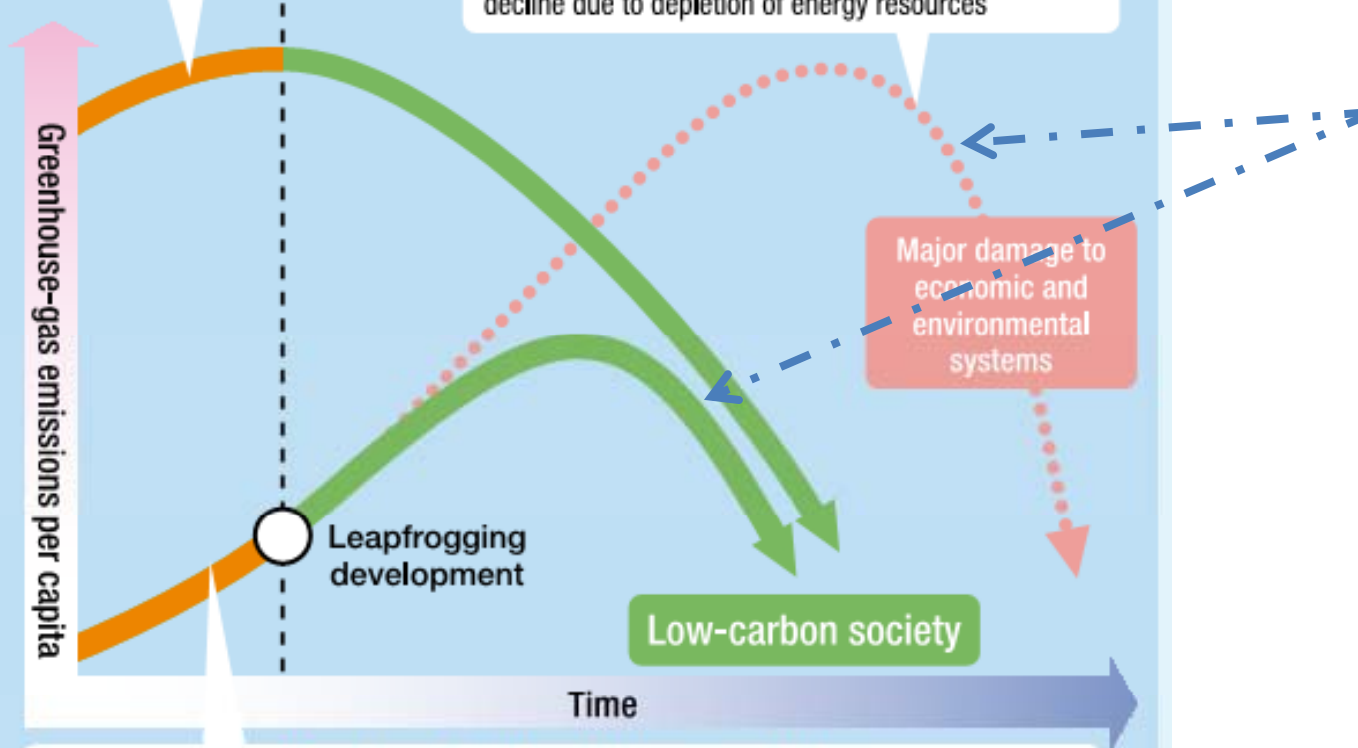
Roadmaps toward a sustainable low-carbon society

## Roadmap for developed countries

Developed countries need to make rapid progress on reducing greenhouse-gas emissions

## Development dependent on traditional energy sources

Continued dependence on traditional energy sources is likely to lead not just to environmental destruction but also to moving along the route toward economic decline due to depletion of energy resources



## Roadmap for developing countries

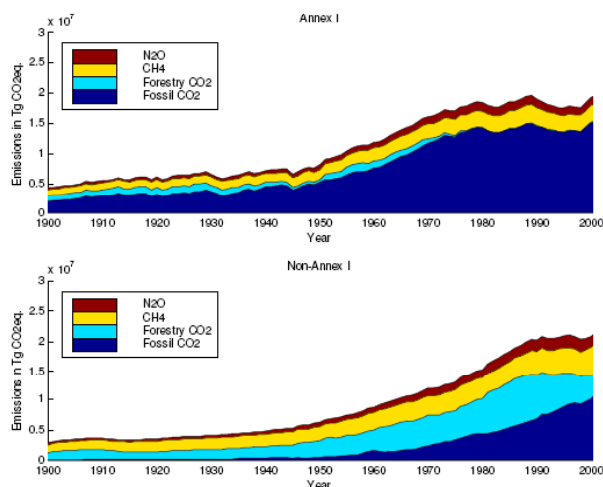
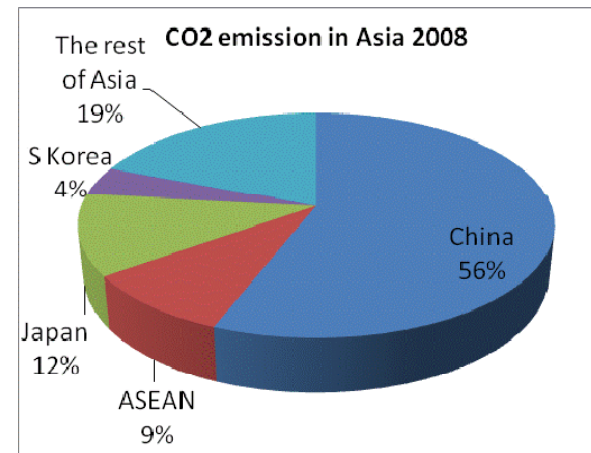
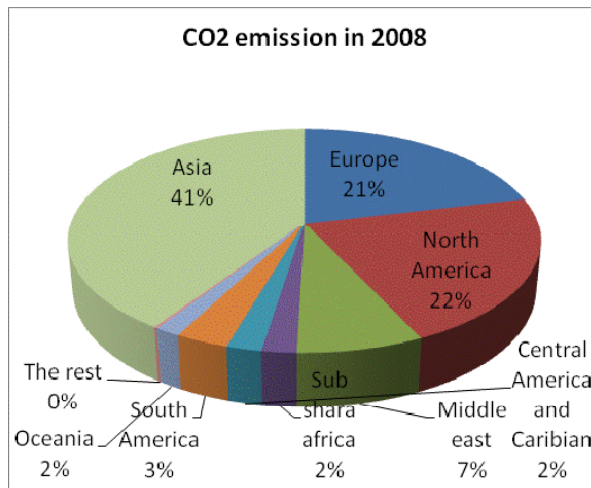
At this point in time, developing countries can avoid the rapid increases in emissions experienced by developed countries by developing roadmaps based on direct use of low-carbon technologies and social infrastructure development suited to such use, instead of adopting traditional technologies

Most of Asian country

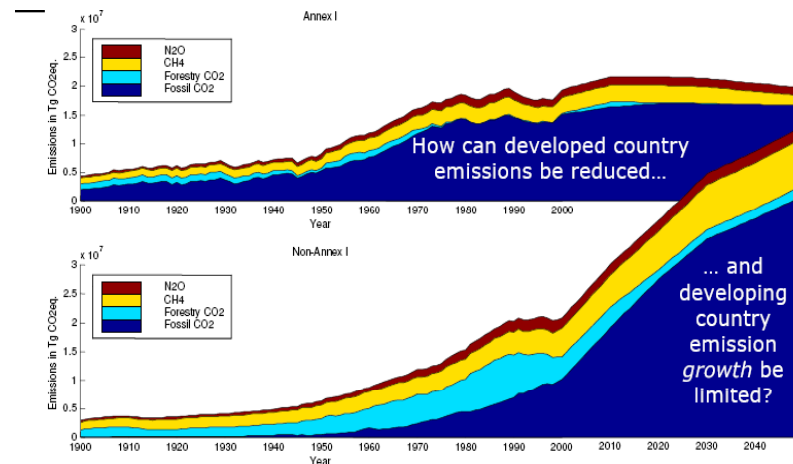
Fig.2 Source: National Institute for Environmental Studies, Low-carbon society scenarios in Asia

# Understanding Asia

- Importance of Asian emission and reduction

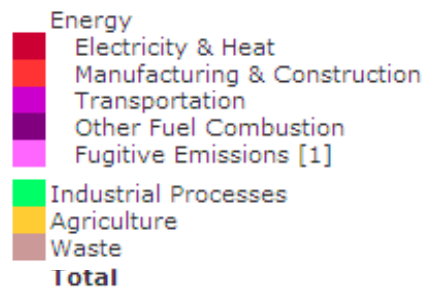


Source: Ecofys/ Marland et al. / Houghton et al. / EDGAR 3.2



Source: Ecofys/ IPCC SRES A1B scenario

# Sector



## World

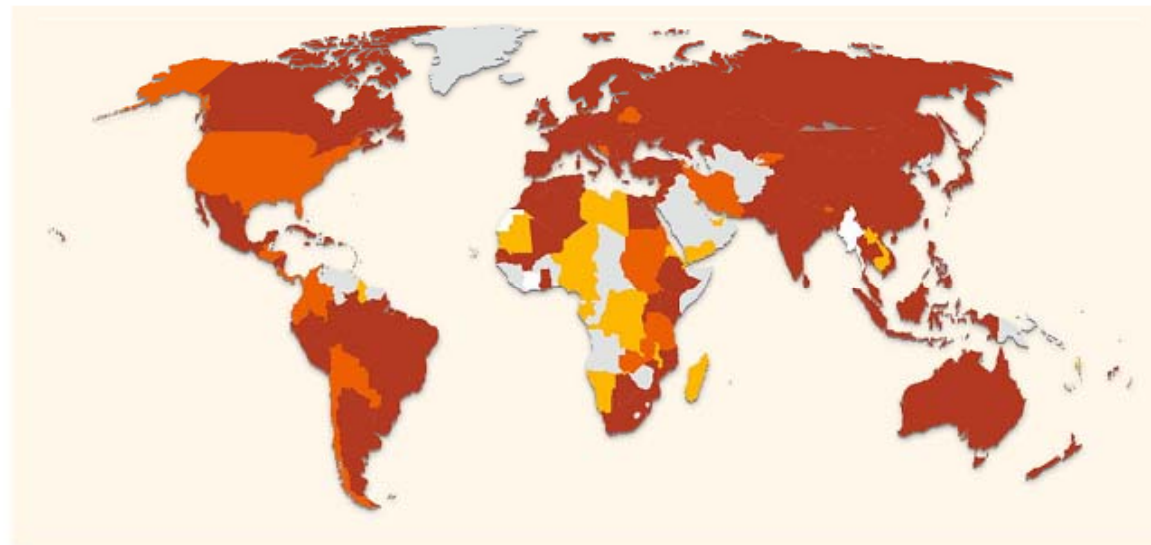


## Asia



WRI 2007

## RE-specific policies and RE targets 2011



■ Countries with AT LEAST ONE National RE Policy and ONE RE Target

■ Countries with AT LEAST ONE National RE Policy

■ Countries with AT LEAST ONE National RE Target

■ Countries without RE Policy Mechanisms and RE Targets

■ No Data

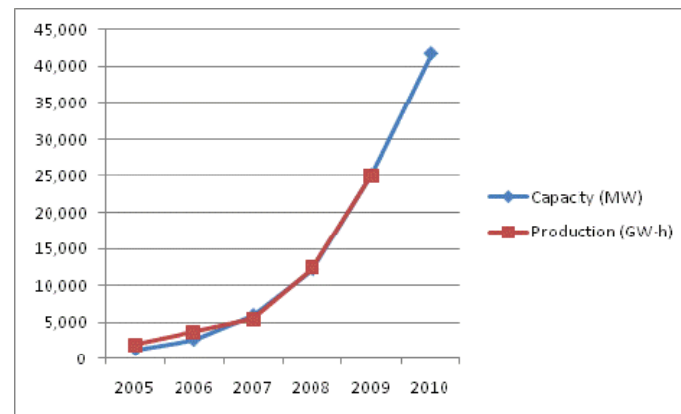
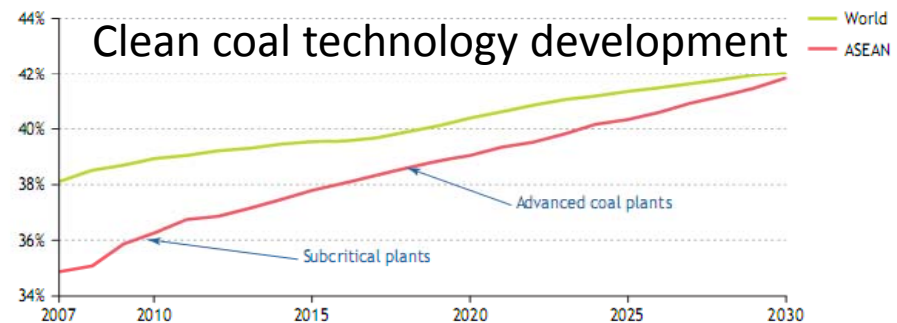
# Understanding Asia : Mitigation capacity in 2030 and beyond

- Renewable energy
  - Solar
  - Wind
  - Biomass
  - Biofuel
- Energy Efficiency
  - Building and residential



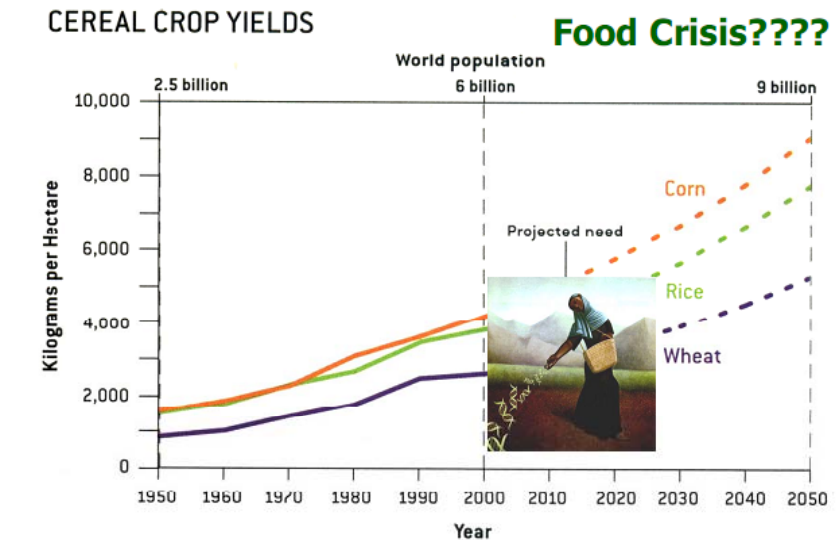
Promotion of Wind Energy in China

**Figure 15.12** • ASEAN efficiency improvements in coal-fired generation in the Reference Scenario

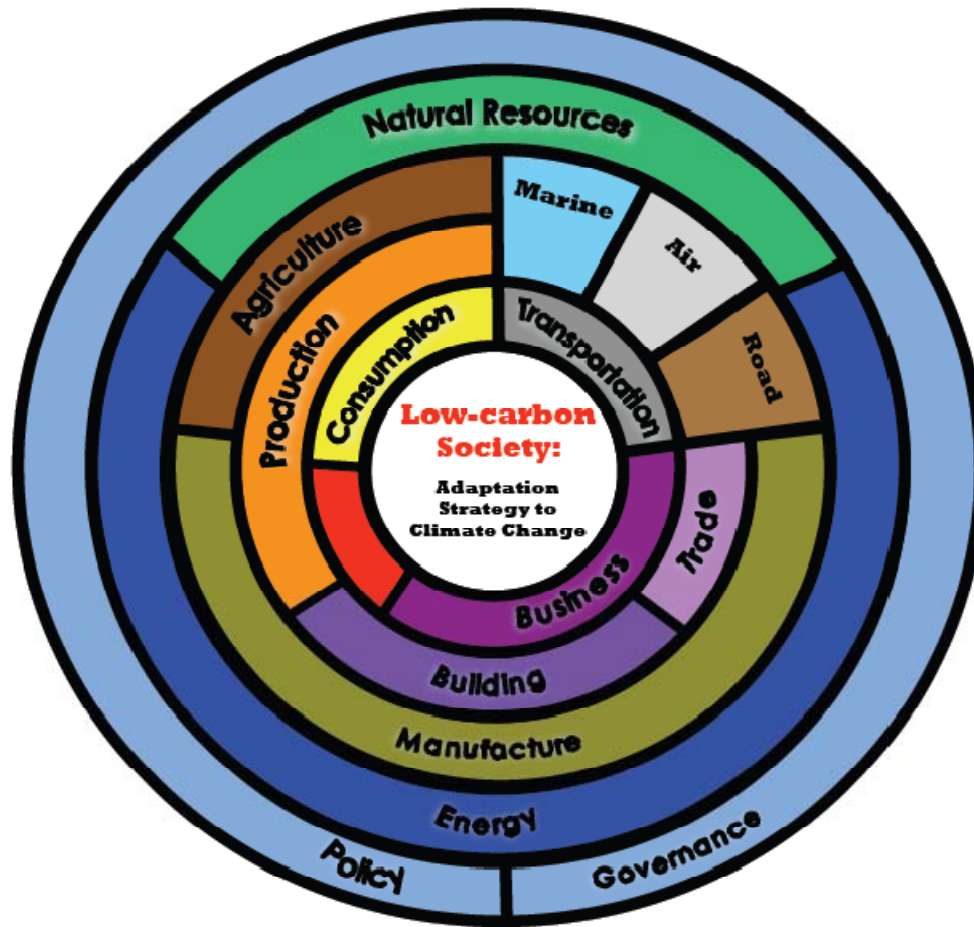


# Understanding Asia

- Importance of Asia to the world
  - Energy sources
  - Food security
  - Population constraint
  - GDP growth



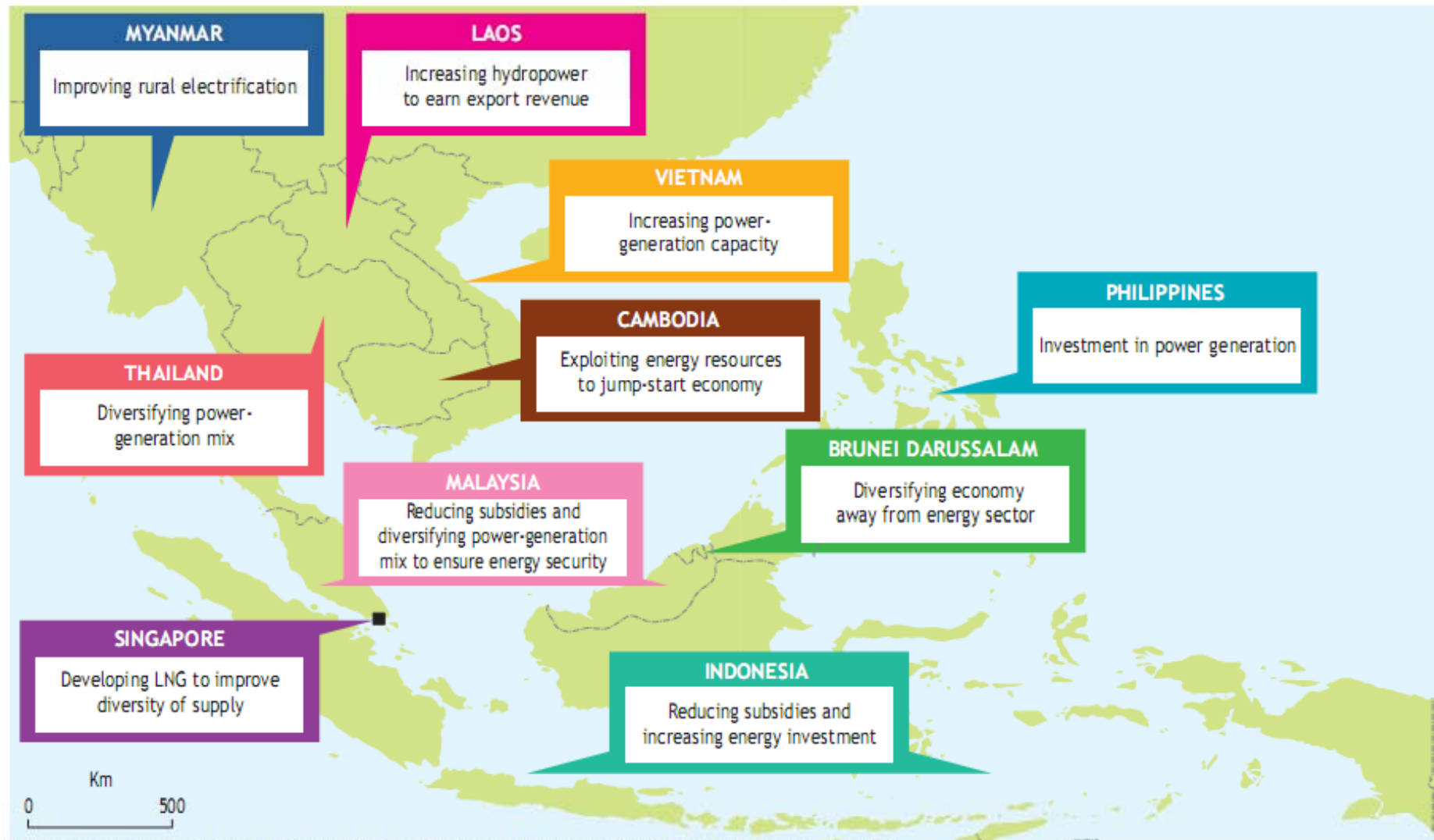
# Low carbon society wheel



Different circumstances ,  
different size and  
components of wheel



# Key Energy Challenges in ASEAN

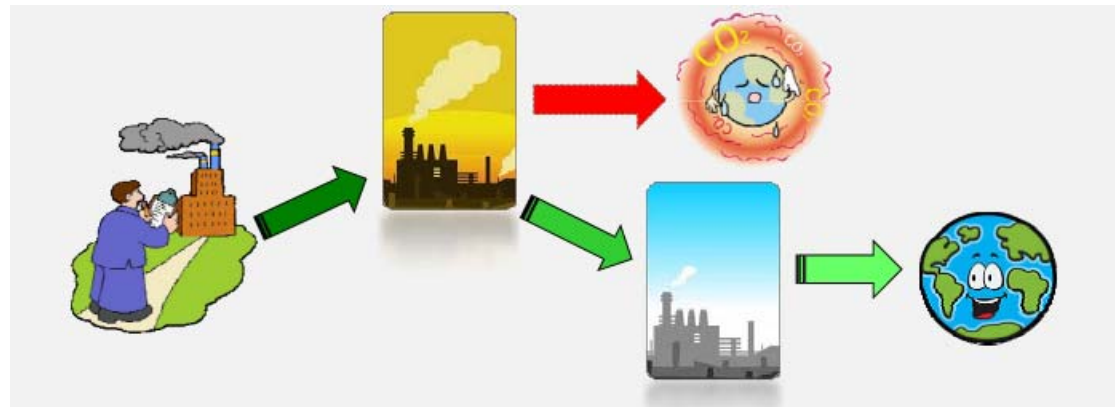


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# LCS : ASIA league

- Look at uniqueness : Technology and Society
- Share experiences
- Learn from each other
- Linkage from the bottom
  - Practice level
  - Local level
  - National level
  - Region level

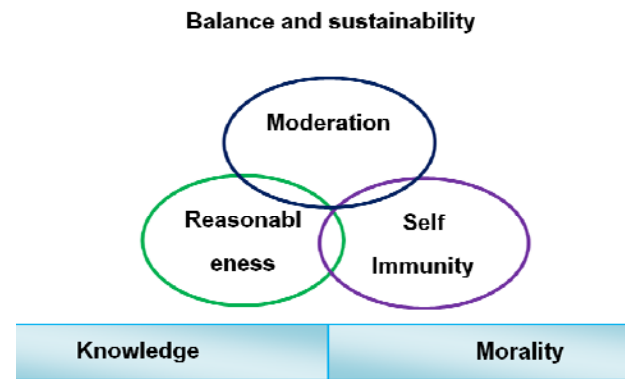
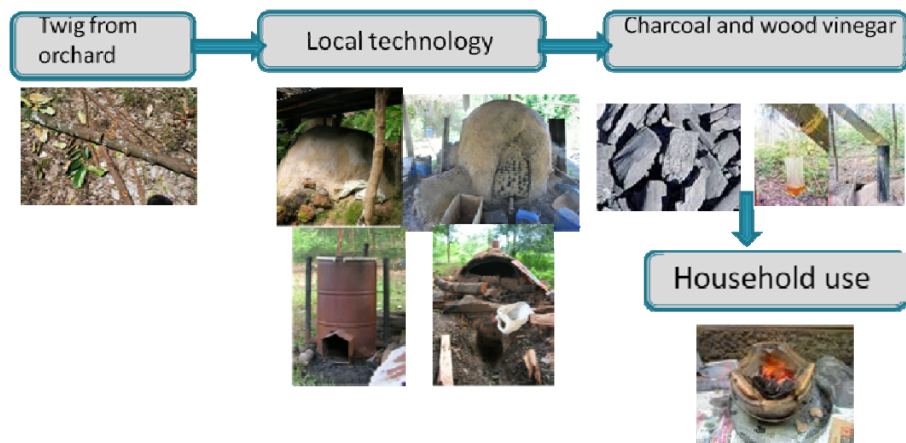


# Look at uniqueness :Technologies

- Wind farm in China
- Solar park and biogas in India
- Green building in Singapore
- Biodiesel in Malaysia
- Bioethanol in Thailand
- Peatland conservation in Indonesia
- Integrated farmland in Philippines

# Look at uniqueness : Society

- Local wisdom to paradigm shift
  - Sufficiency carbon economy
  - Coexistence with nature

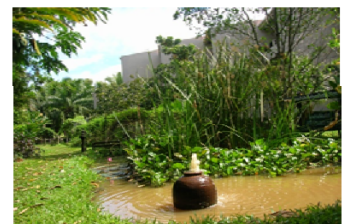
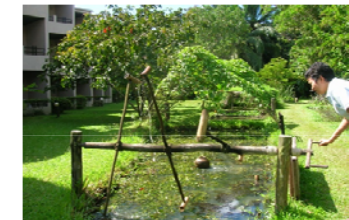
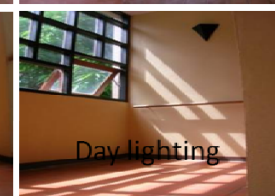
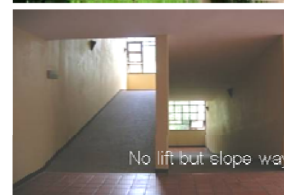
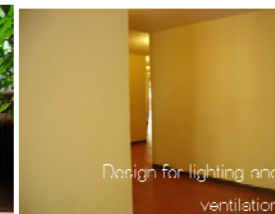
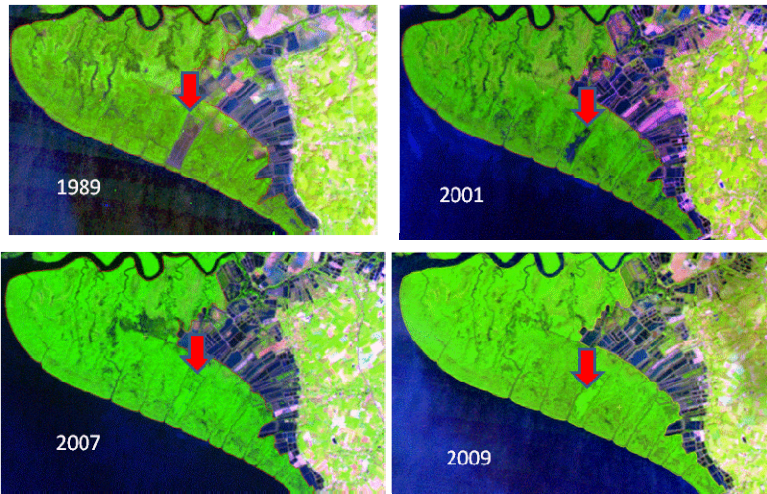


# From practices to low carbon society

## Reforestation Energy Efficiency and Zero Waste Demonstration

### Chumporn Carbana resort

#### Ban Pred Nai village



Waste water treatment



Energy Recovery

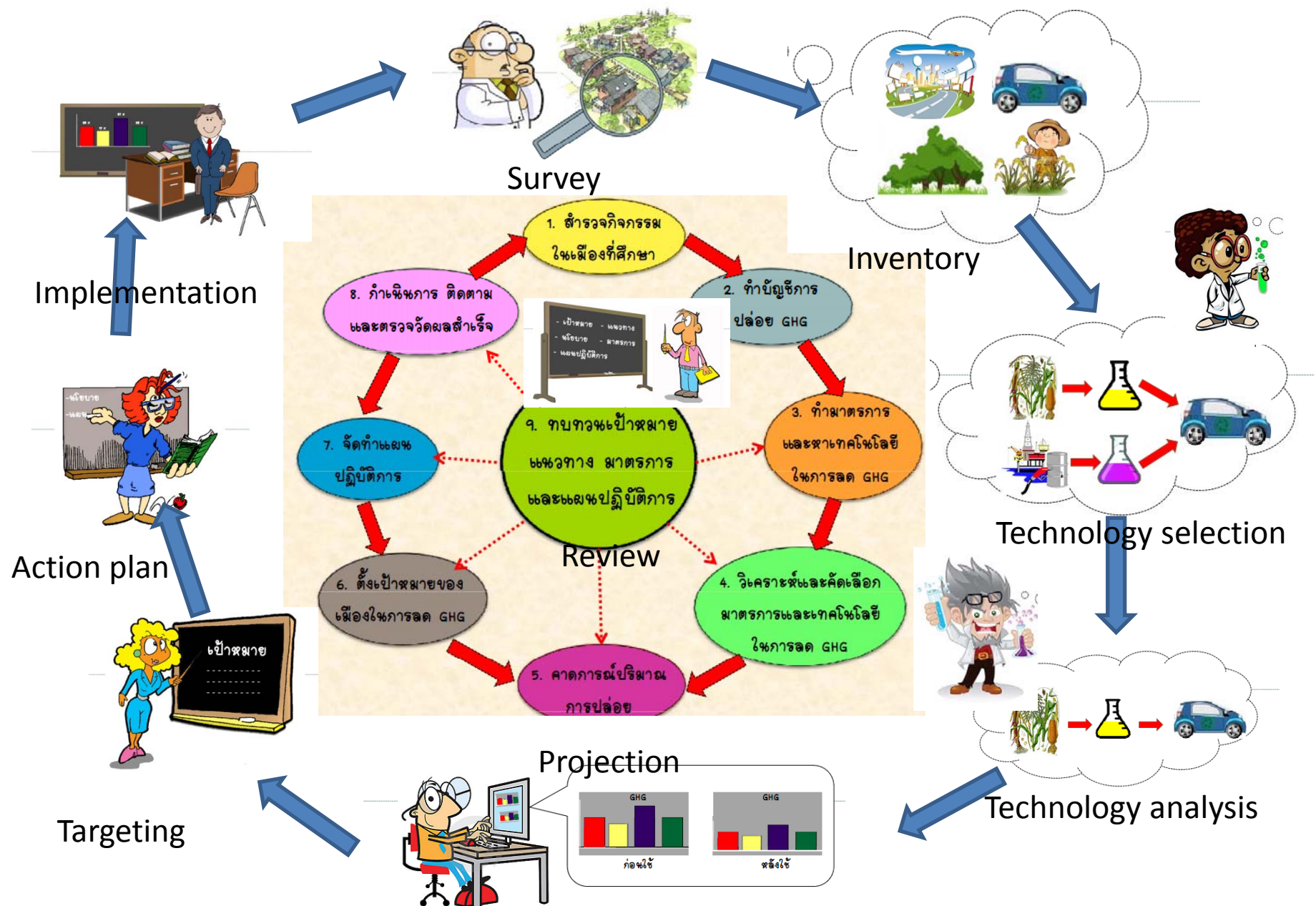
Employee production





# From local study to policy maker

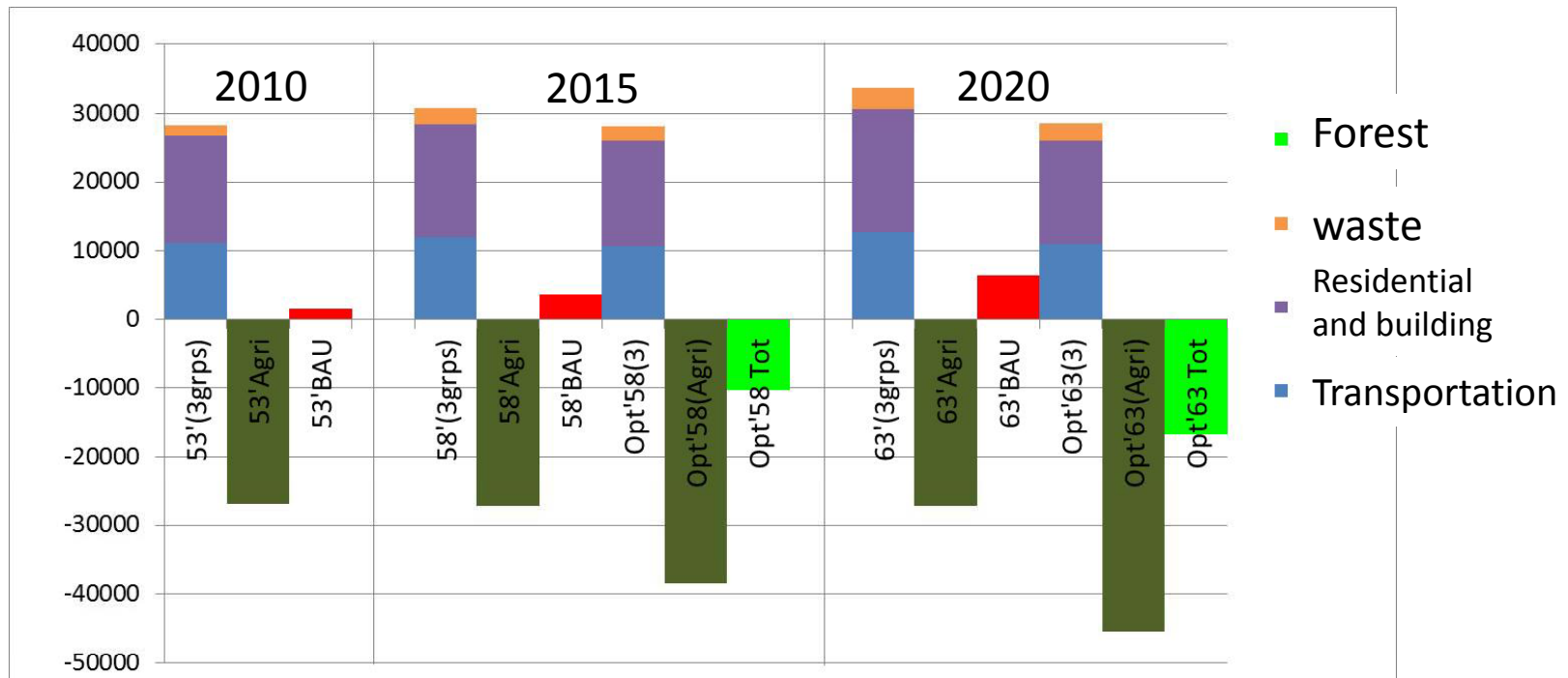
## Nine steps approached to Thai low carbon city





# From local study to policy maker

## Nine steps approached to Thai low carbon city



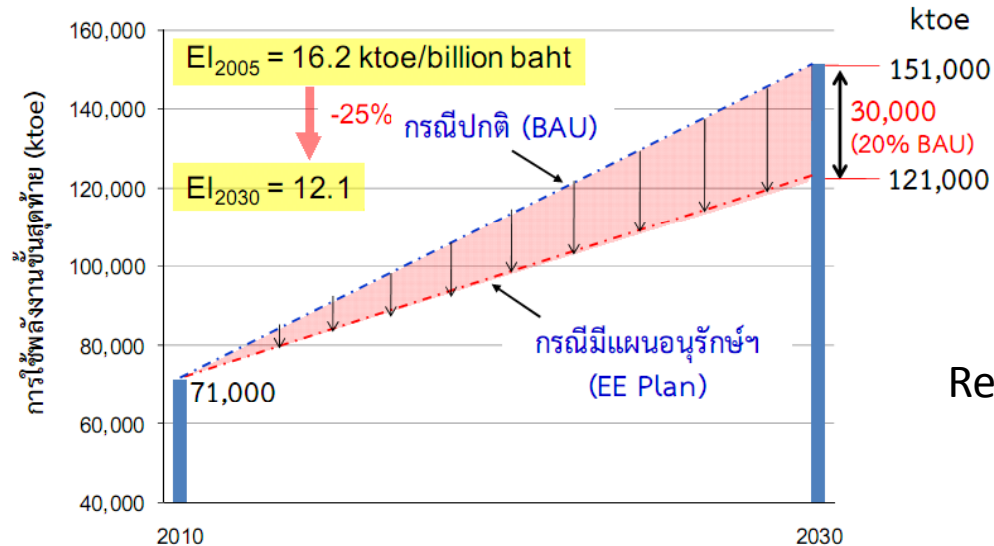
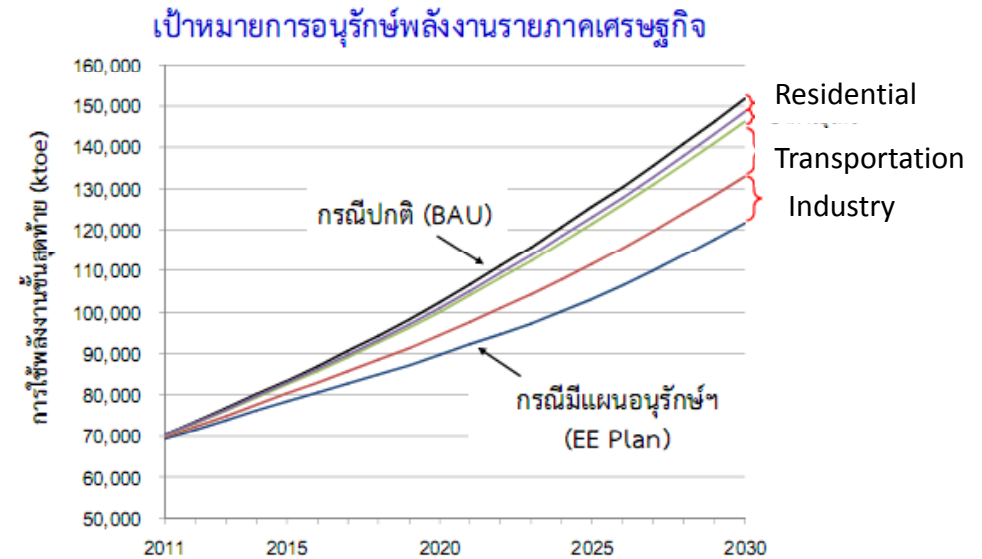
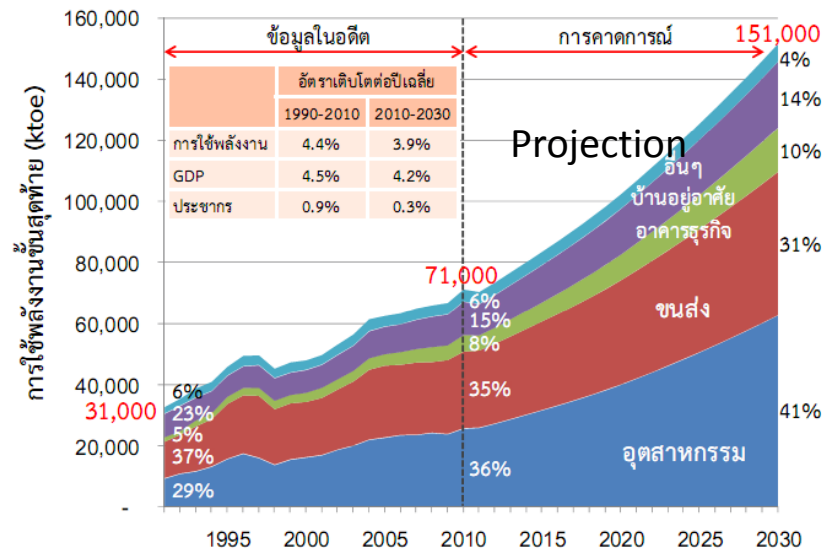
Klang Municipality Rayong Province

### Target

Reduce CO2 5% in the next 5 years and 10 % in the next 10 year  
 Become zero emission (net sink) in the next 5 year

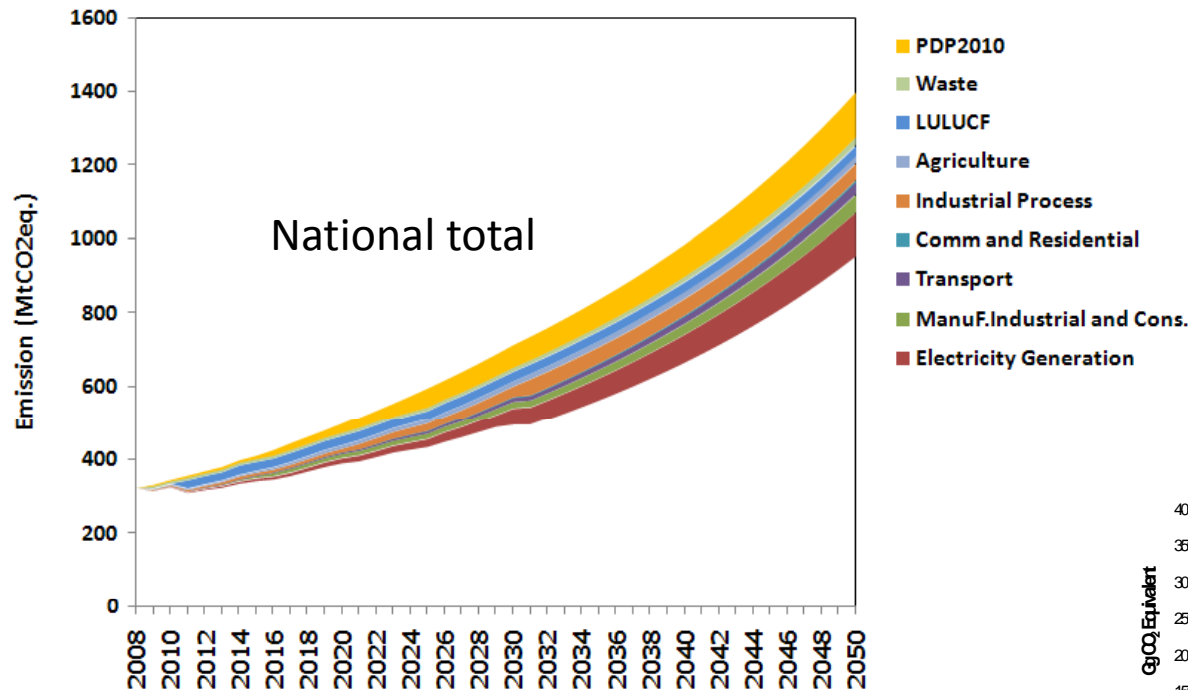
# From research to national policy

## 20 years energy efficiency national plan

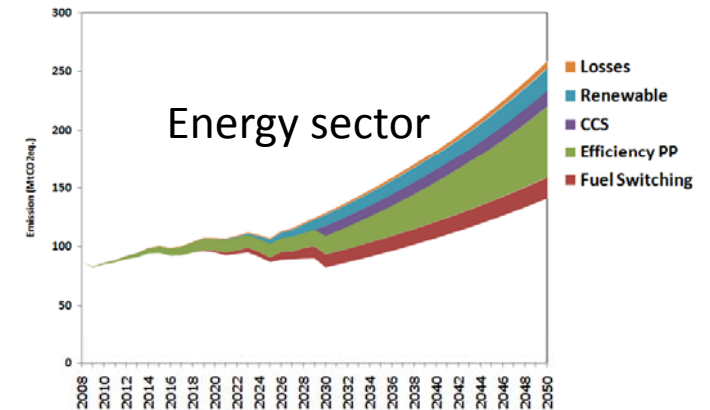


# From research to policy :Mitigation scenario

Contribution of Emission Reduction of BAU,PDP and Climate Plan  
Scenario 2009-2050

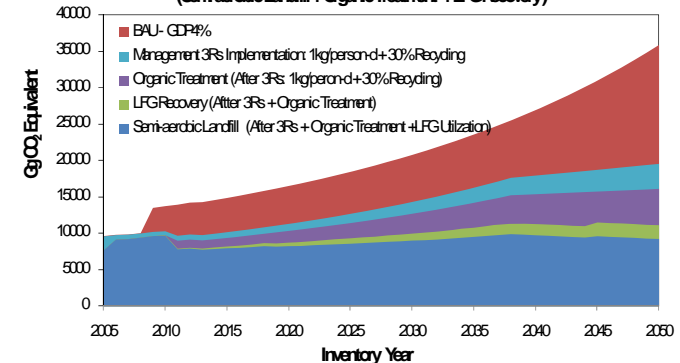


Contribution of Emission Reduction :Power Generation option



## Waste Sector

Environmental Results Global Warming Potential  
Combined Mitigation: Management (3Rs) with Technology  
(Sanitary Landfill + Organic Treatment + LFG Recovery)



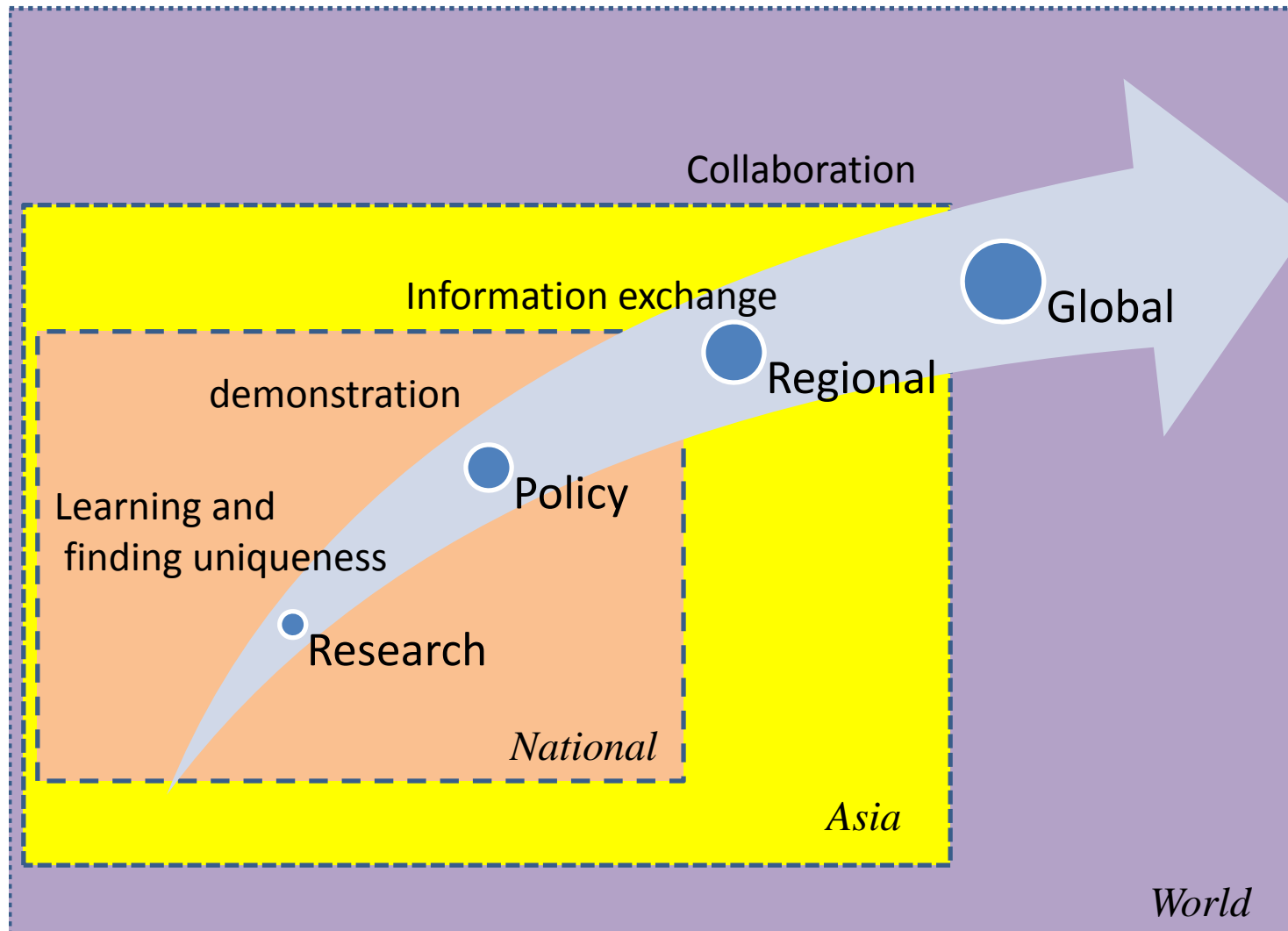
## Total Emission Reduction

	2008	2010	2020	2030	2040	2050
Emission Reduction (MtCO <sub>2</sub> )	0.0	18.6	107.3	218.1	316.5	442.9
Emission Reduction (%)	0.0	5.4	21.5	30.5	32.1	31.7

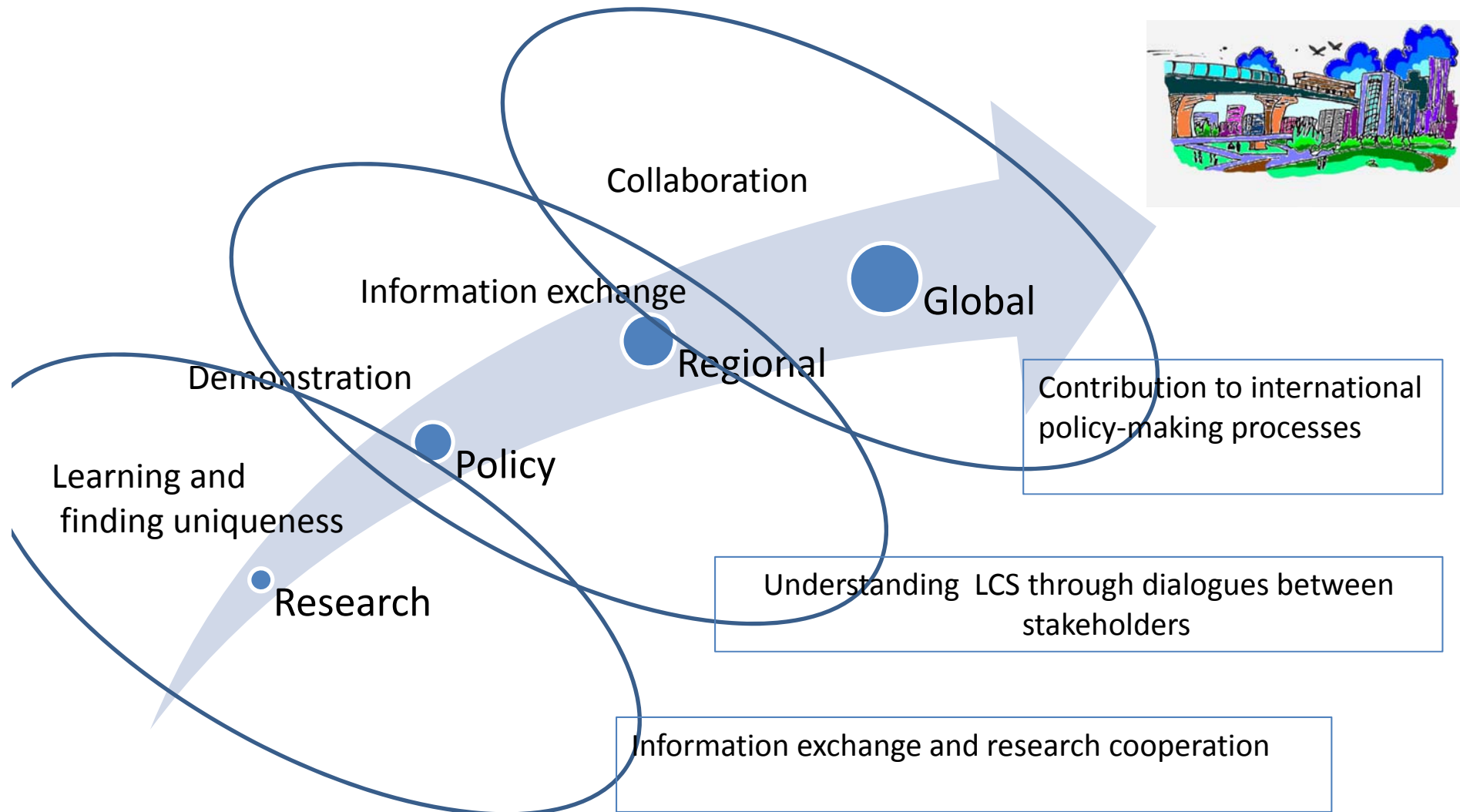
# Objectives of LCS-RNet

- Promotion of information exchange and research cooperation that cover various issues relating to lowcarbon societies,
- Promotion of understanding about LCS through dialogues between researchers and various stakeholders including policy-makers, businesses, citizens and others to share national and sub-national visions on low-carbon societies, and
- Contribution to international policy-making processes on climate change including G8 process by providing research outcomes and recommendations.

# LCS : Asia League

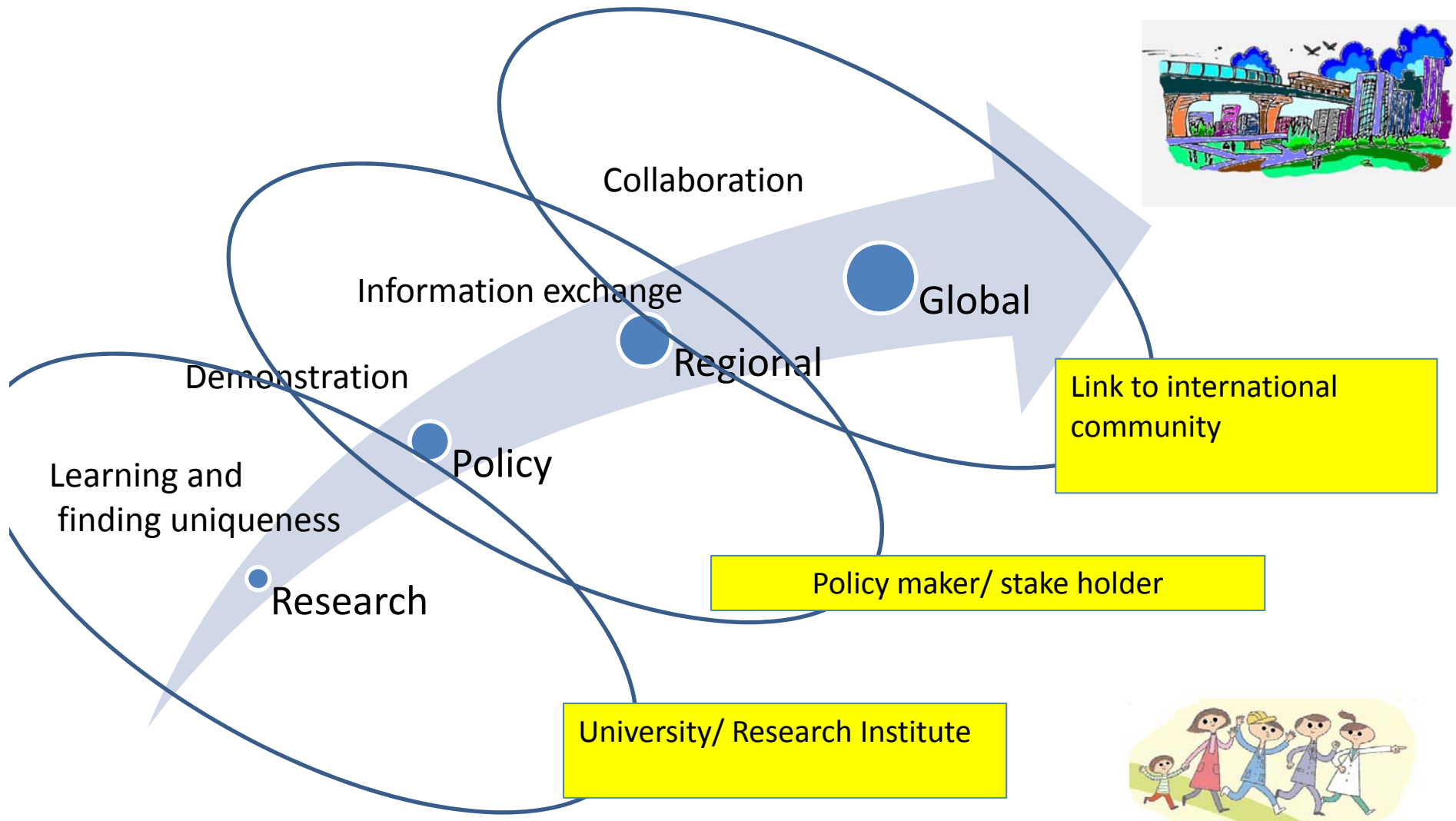


# Asia league Answer to the LCS rnet objective



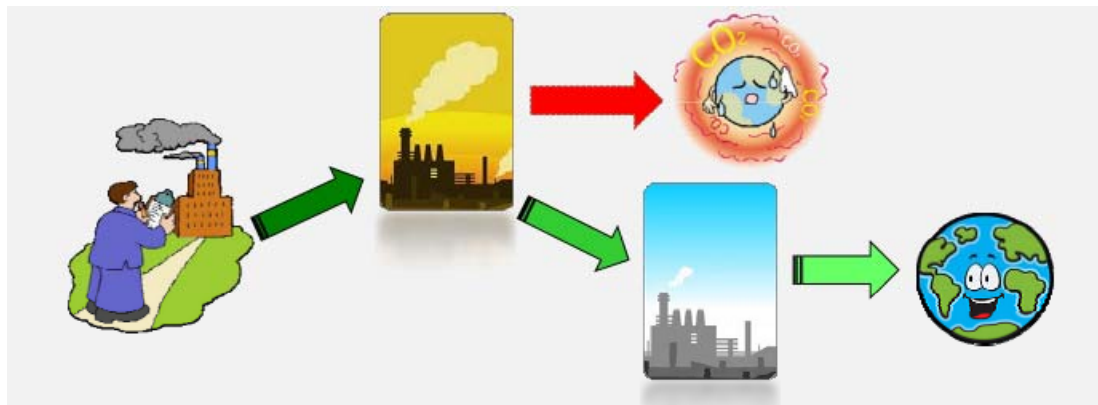


# Asia league : Network forming



# ASIA League

- Low carbon
- Exchange information
- Alliance
- Good practice
- Uniqueness
- Experience sharing





- Thank you very much
- Khop Khun ka
- Arigato
- Terima kasih



# Acknowledgement

- Thailand Research Fund
- Thailand Greenhouse Gas Management Organization
- Ministry of Energy