



# From Research to Policy: A challenging relationship for LCS

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# Researchers, policy makers and ourselves

- Wrong policy is from wrong information-----  
researchers' faults
- No policy is from no decision making-----  
policy makers' faults
- No actions and talk only is our faults

# Low-carbon society scenario research:

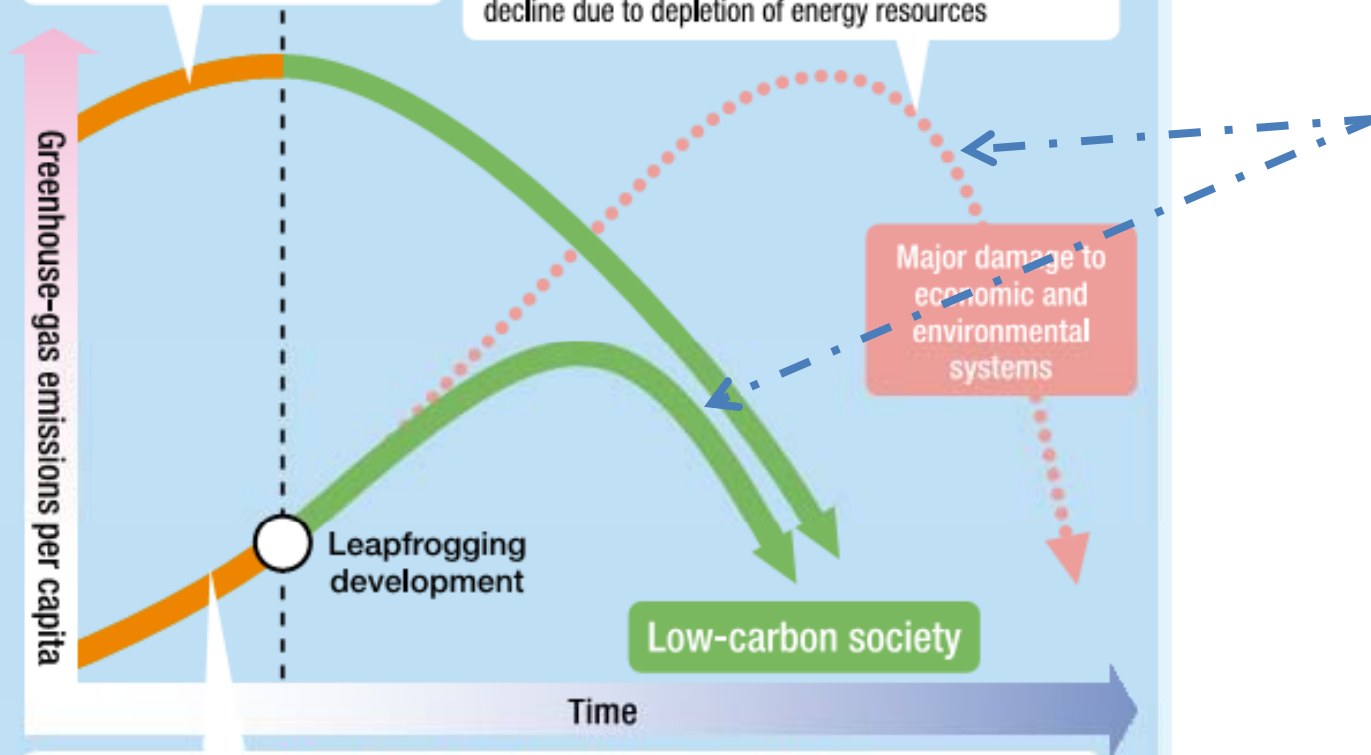
Roadmaps toward a sustainable low-carbon society

## 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



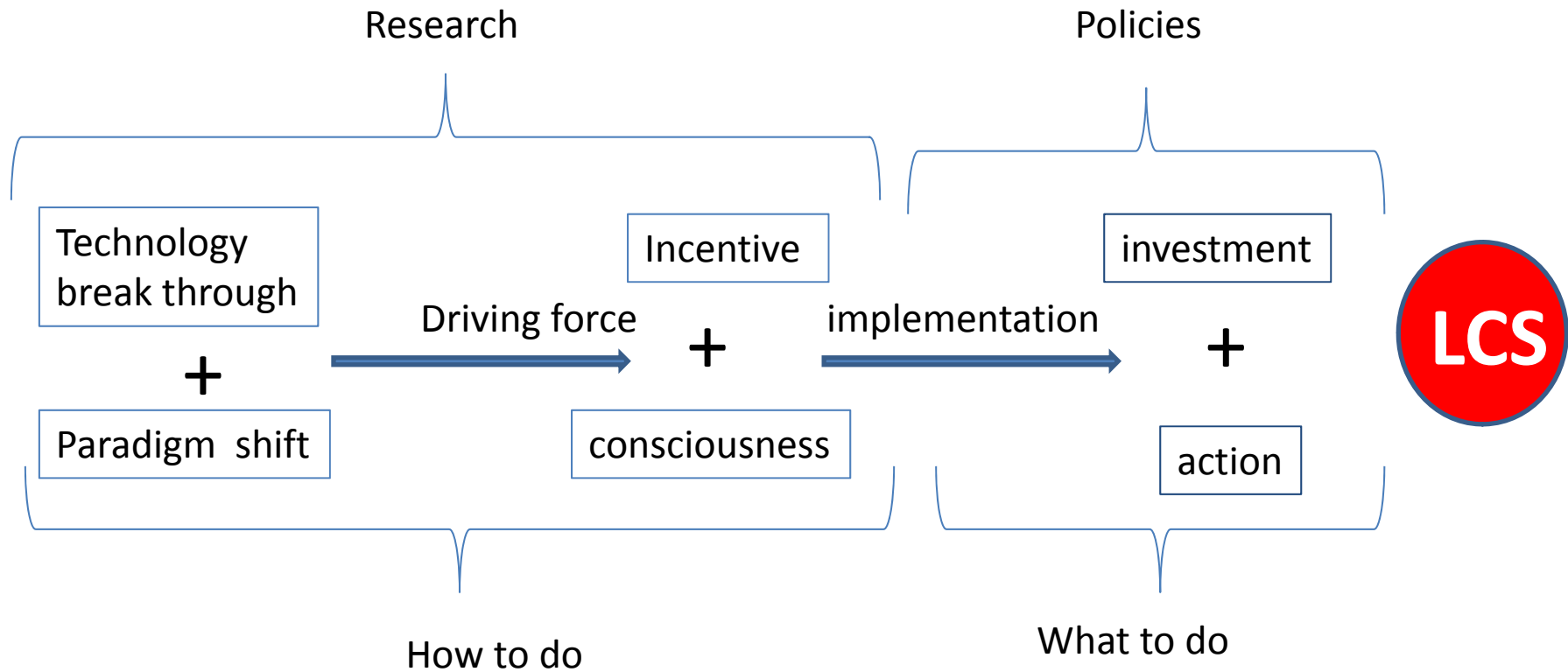
## Roadmap for developing countries

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

# Low carbon path : Research and policies



# Understanding Policy makers

- Need result with easy communication
- Result with numbers
  - Economics and impacts analysis
- Research with quick answers
- Reliable result
- Alternative options

# Understanding researchers

- Long term secured research
- Expertise development
- Clear question to do research
- Scientific analysis and explanation

# How to build up relationship

- From dialogue to planning
  - Clear message from policy maker
- From research to action
  - Good quality and reliable research
  - Synergistic research , multidiscipline
- From implementation to evaluation
  - Easy to communicate and MRV

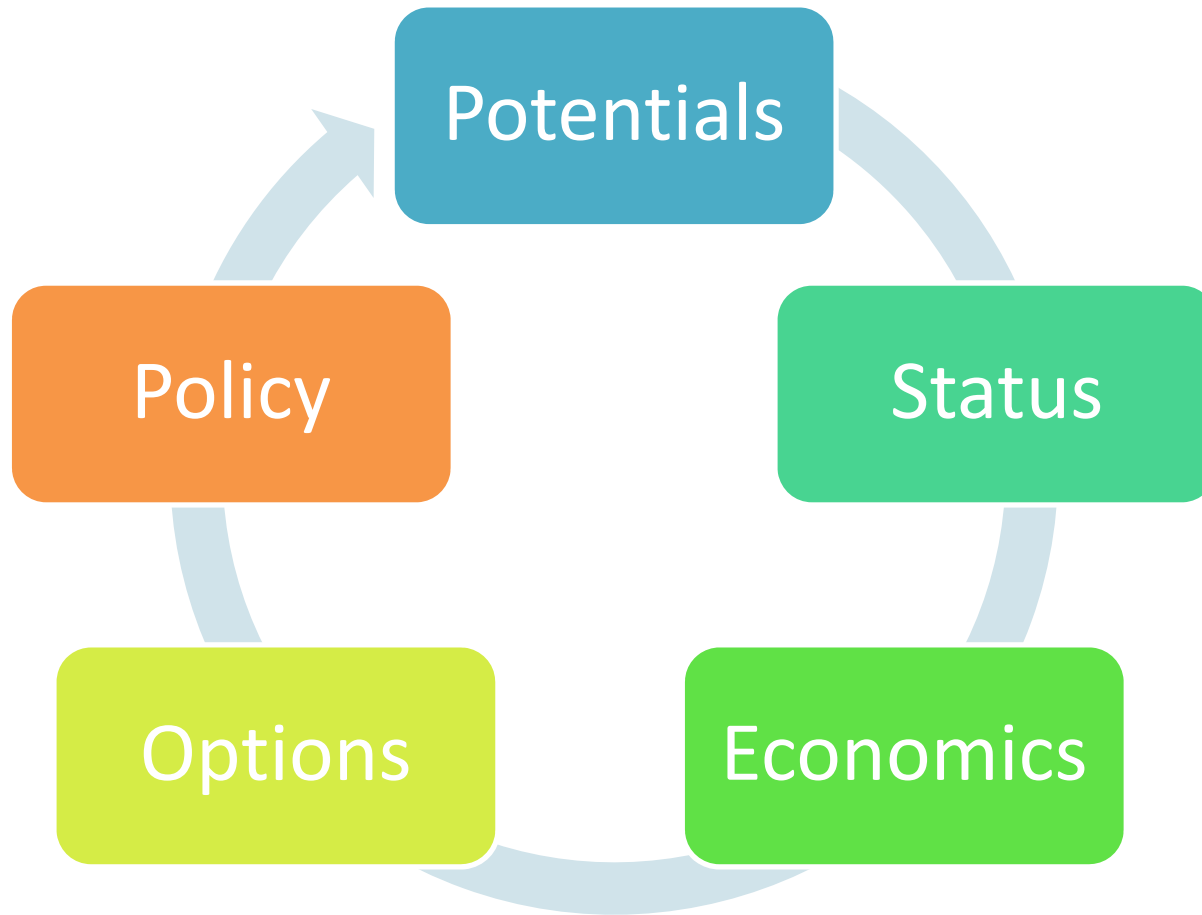


# From research to action

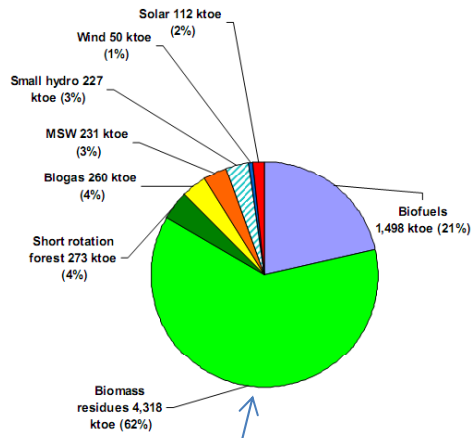
- Full loop study
- Status qua project
- Economic related project
- Research for positioning
- Community based



# Examples of Full loop study

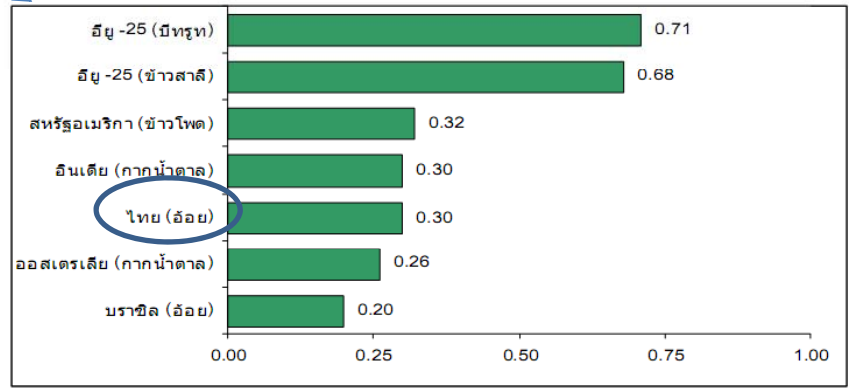
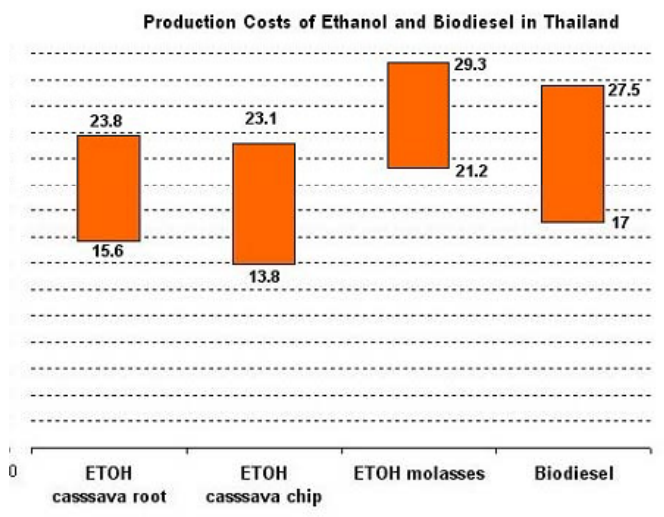
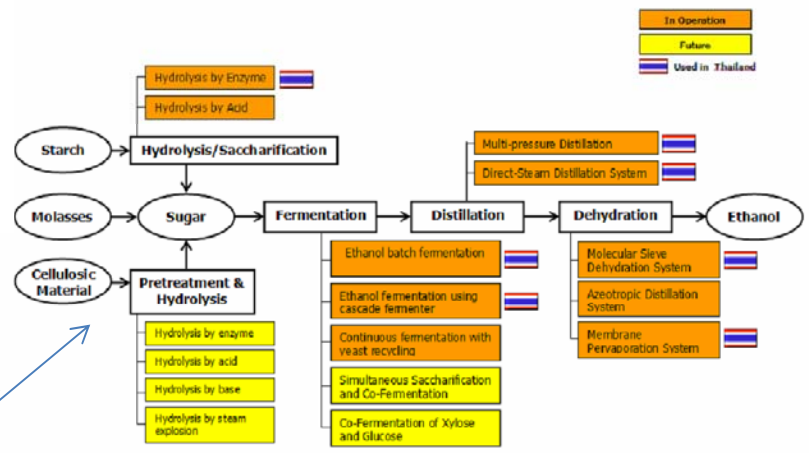
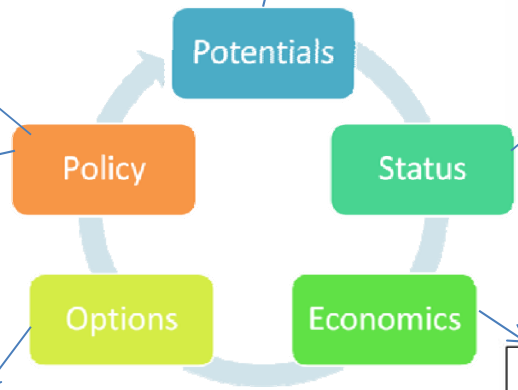


# Loop of research

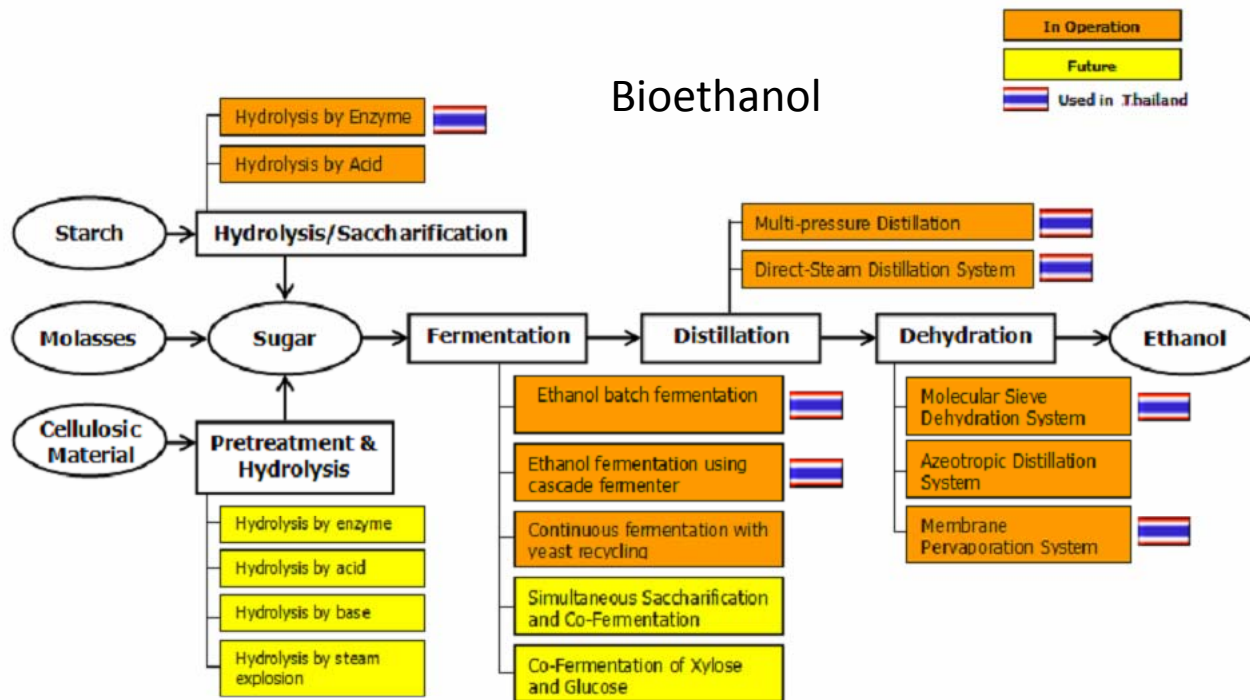


Energy policy : 9 Mtpd

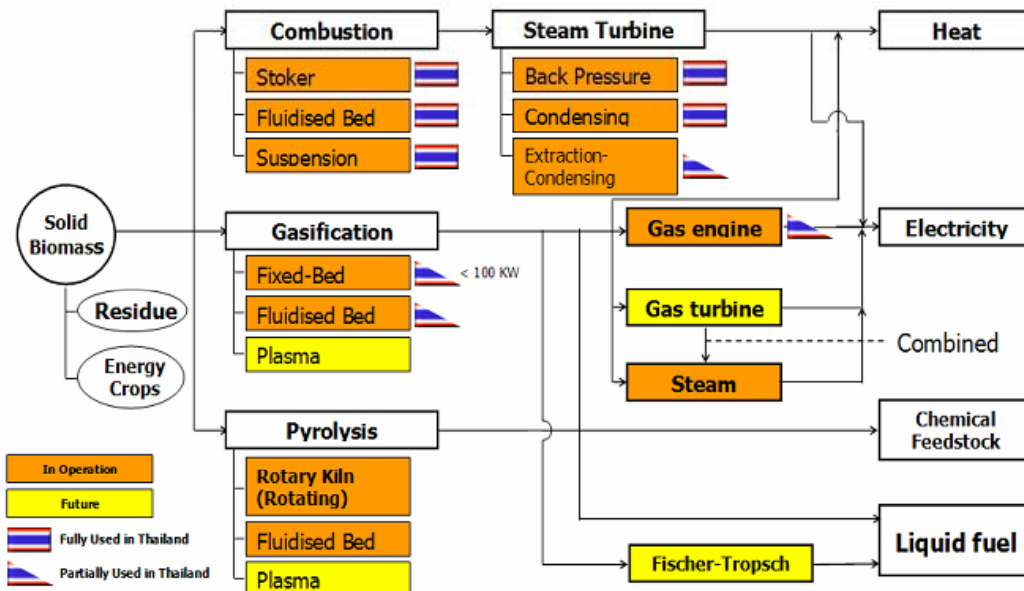
Agriculture policy : Improve yield and land



ที่มา : Global Status of Commercialized Biotech/GM Crops :2007



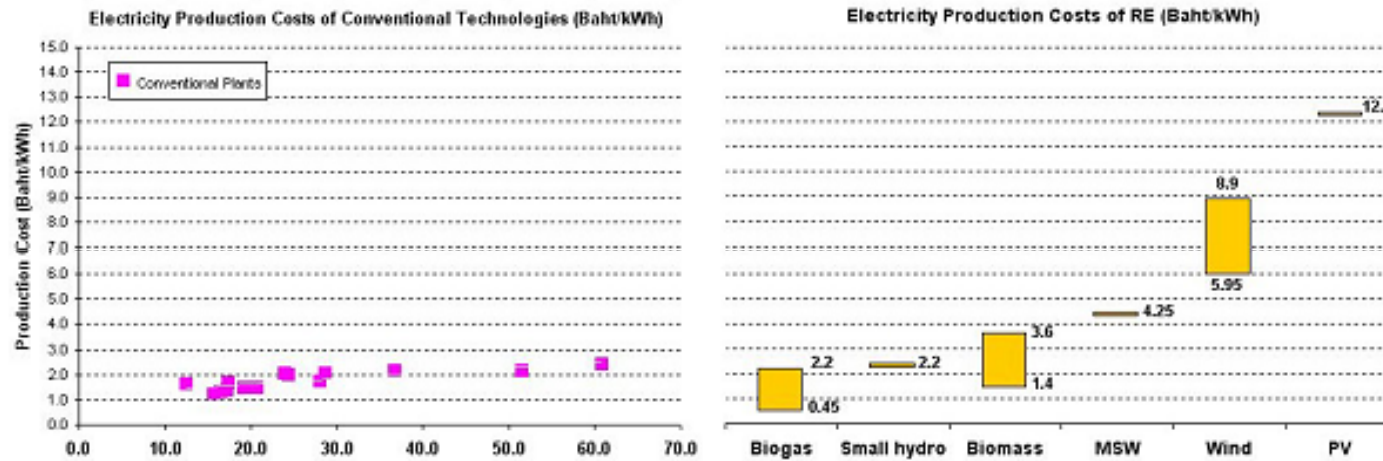
Status quo  
research project



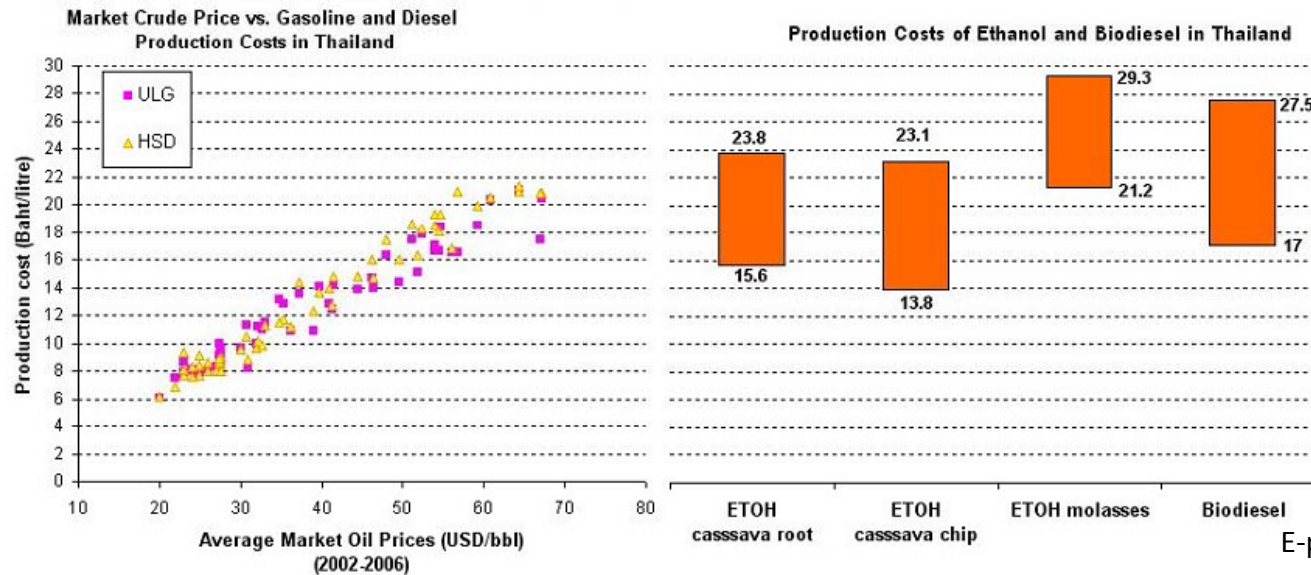
Biomass Technology

# Economic related research project

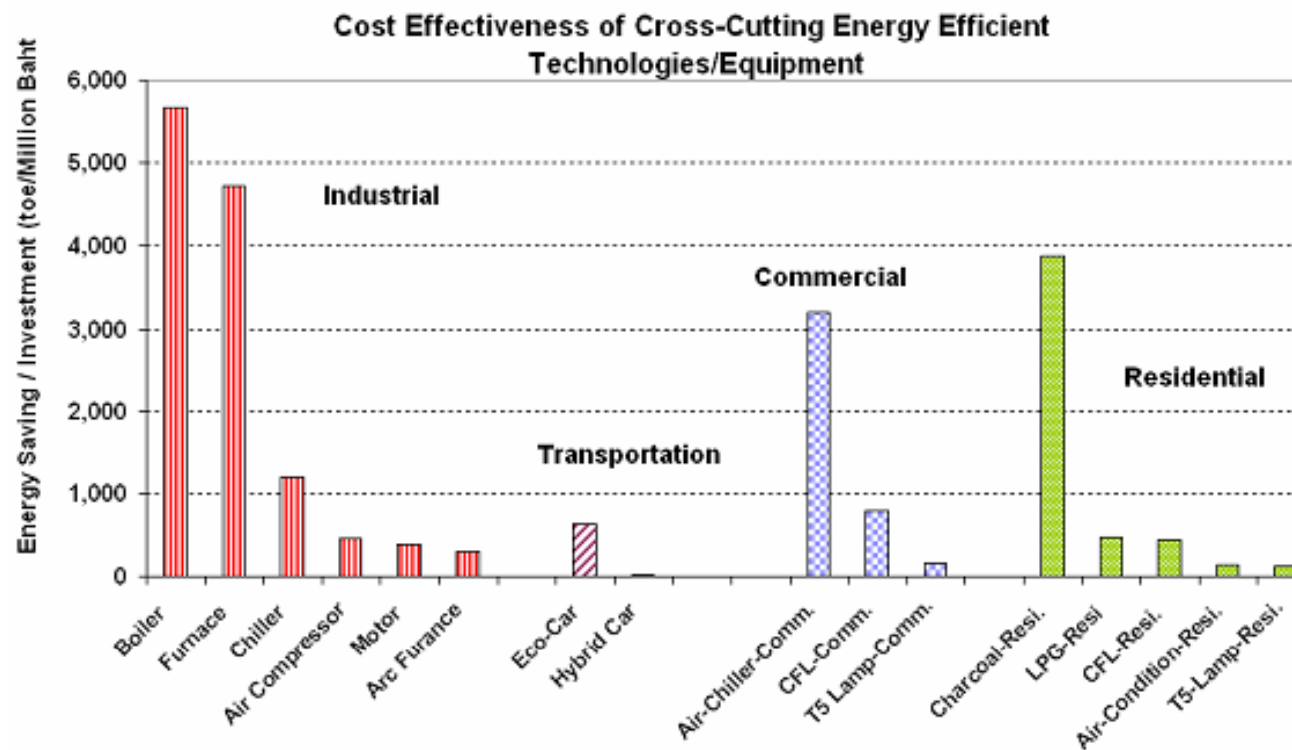
## Electricity Production Costs of Renewable Energy Technologies in Thailand<sup>1</sup>



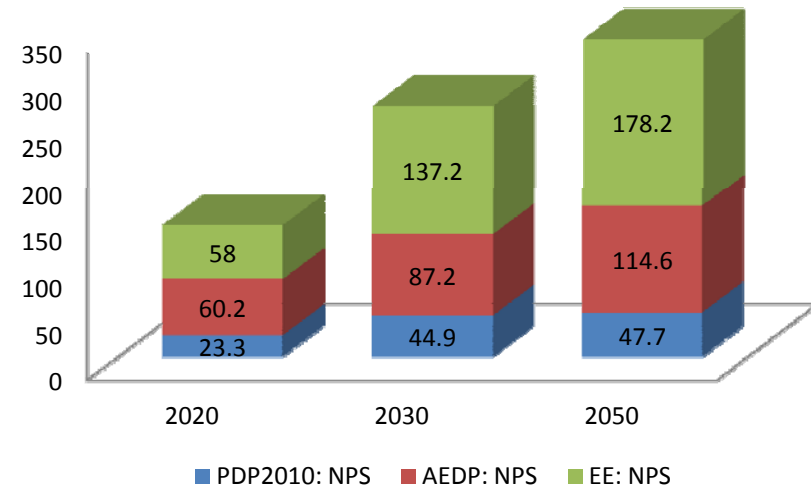
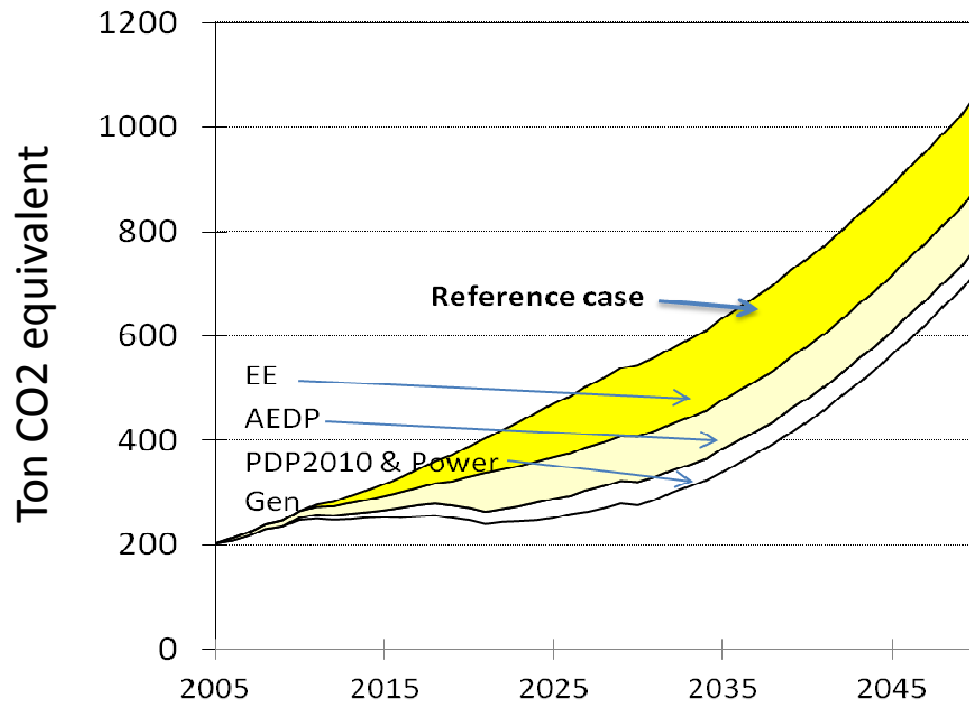
## Production Costs of Ethanol and Biodiesel in Thailand<sup>3</sup>



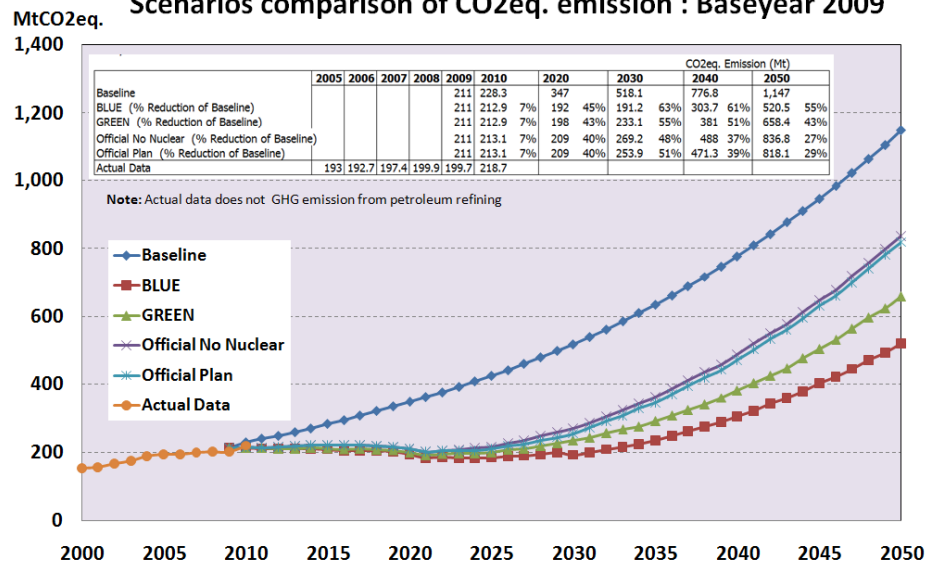
# Economic related research



Options to policy maker

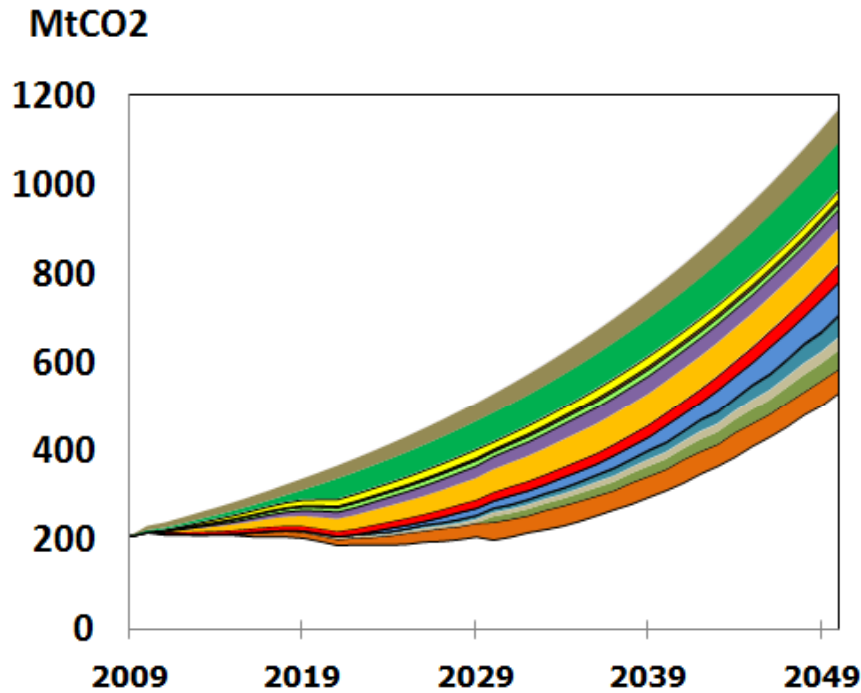


Scenarios comparison of CO2eq. emission : Baseyear 2009

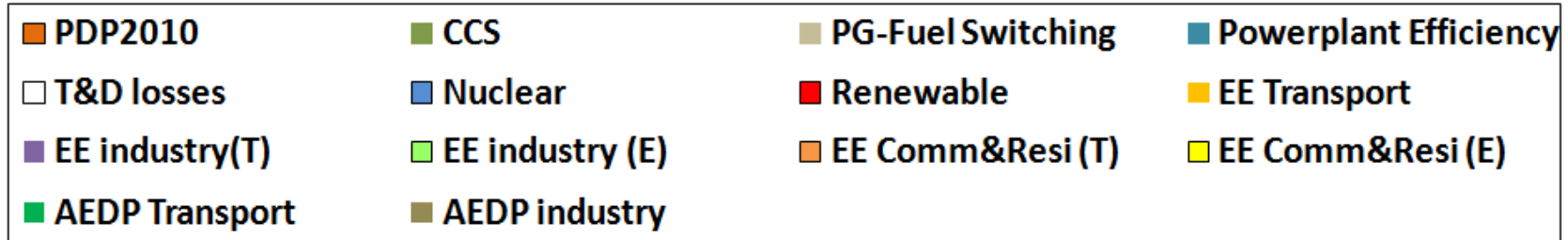


Research for positioning and future planning

# Energy-related CO2 Emission Abatement: BLUE Scenario



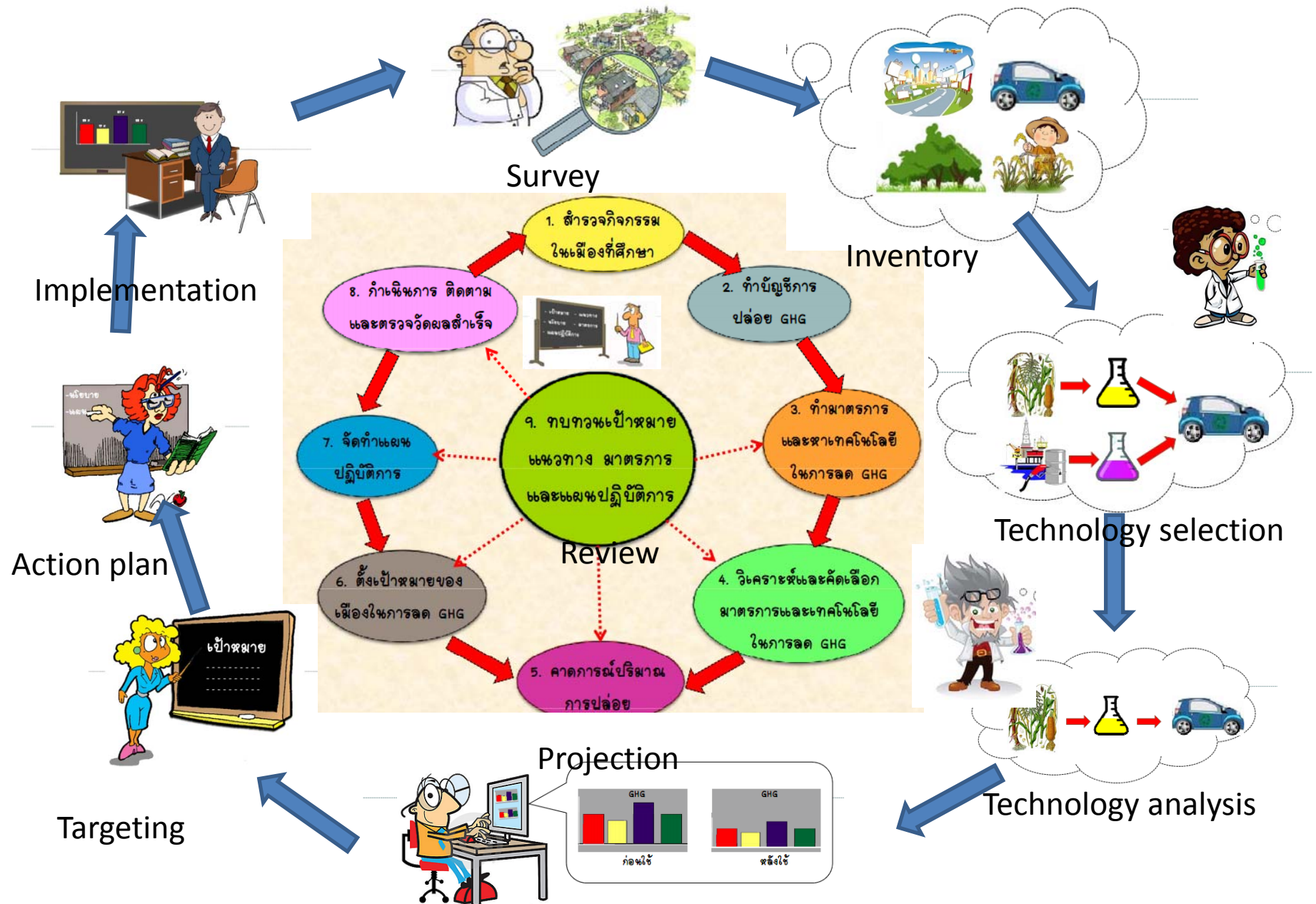
	Abatement (MtCO2)	
	2050 (MtCO2)	2050 (%)
Power Gen	292	45.8
PDP2010 (exl. renewable & nuclear)	54	8.5
CCS	43	6.7
PG-Fuel Switching	29	4.5
Powerplant Efficiency	51	7.9
T&D losses	1	0.2
Nuclear	74	11.6
Renewable	41	6.4
Efficiency	163	25.5
EE Transport	76	11.9
EE industry(T)	46	7.3
EE industry (E)	14	2.2
EE Comm&Resi (T)	7	1.0
EE Comm&Resi (E)	20	3.1
Fuel Switching	163	28.7
AEDP Transport	107	16.7
AEDP industry	75	11.8
AEDP Commercial	2	0.2
<b>Total</b>	<b>638</b>	<b>100.0</b>





# Community based research : implementation and evaluation

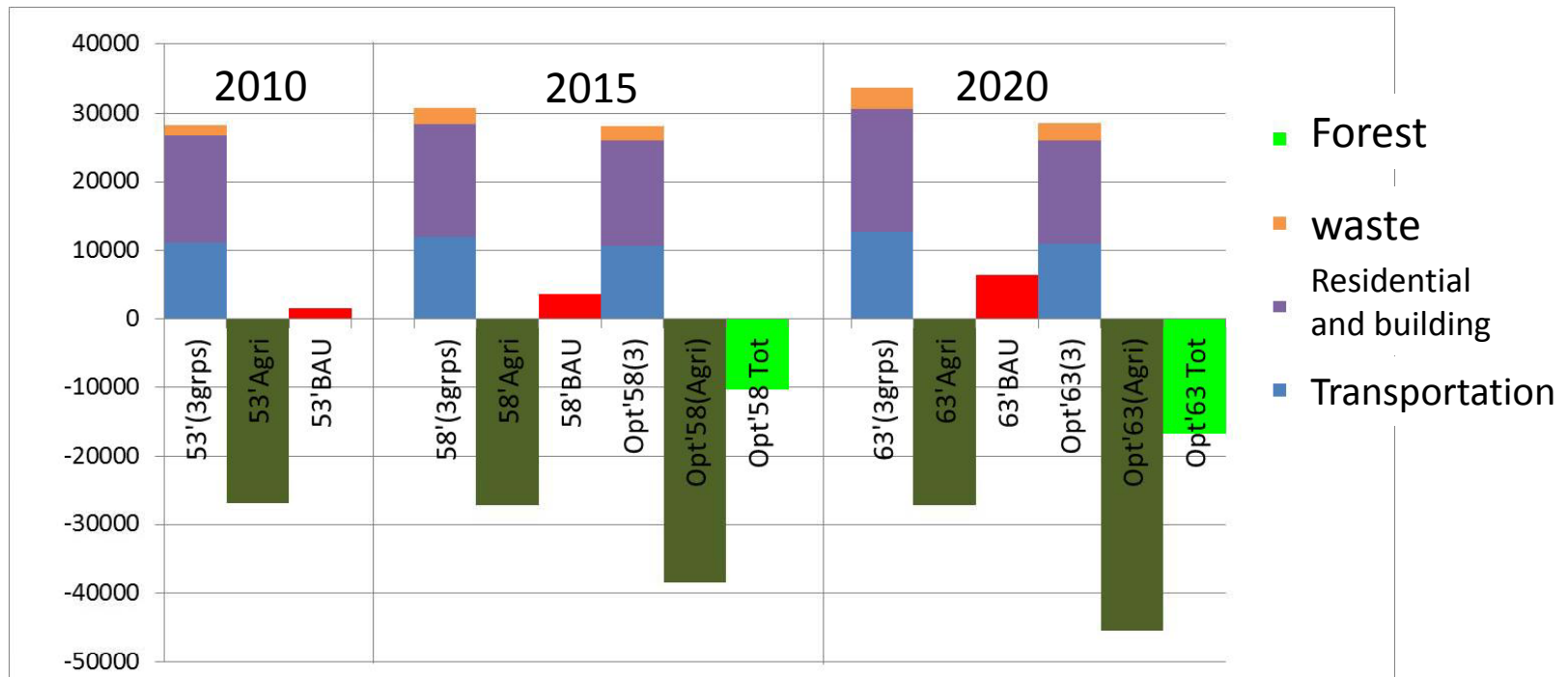
Nine steps approached to Thai low carbon city





# From local study to policy maker

## Nine steps approached to Thai low carbon city



Klang Municipality Rayong Province

### Target

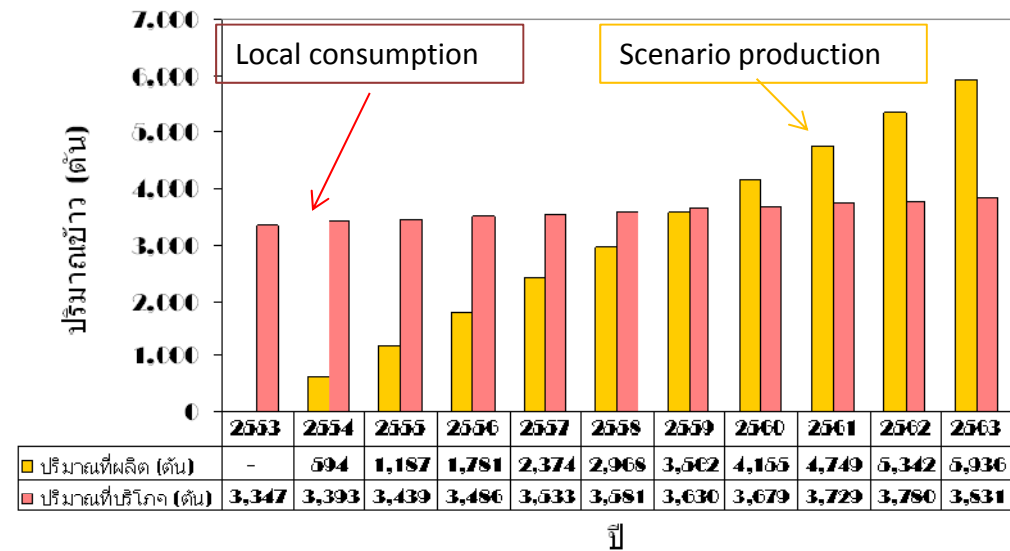
Reduce CO2 5% in the next 5 years and 10 % in the next 10 year  
 Become zero emission (net sink) in the next 5 year

# Bottom up approach measure



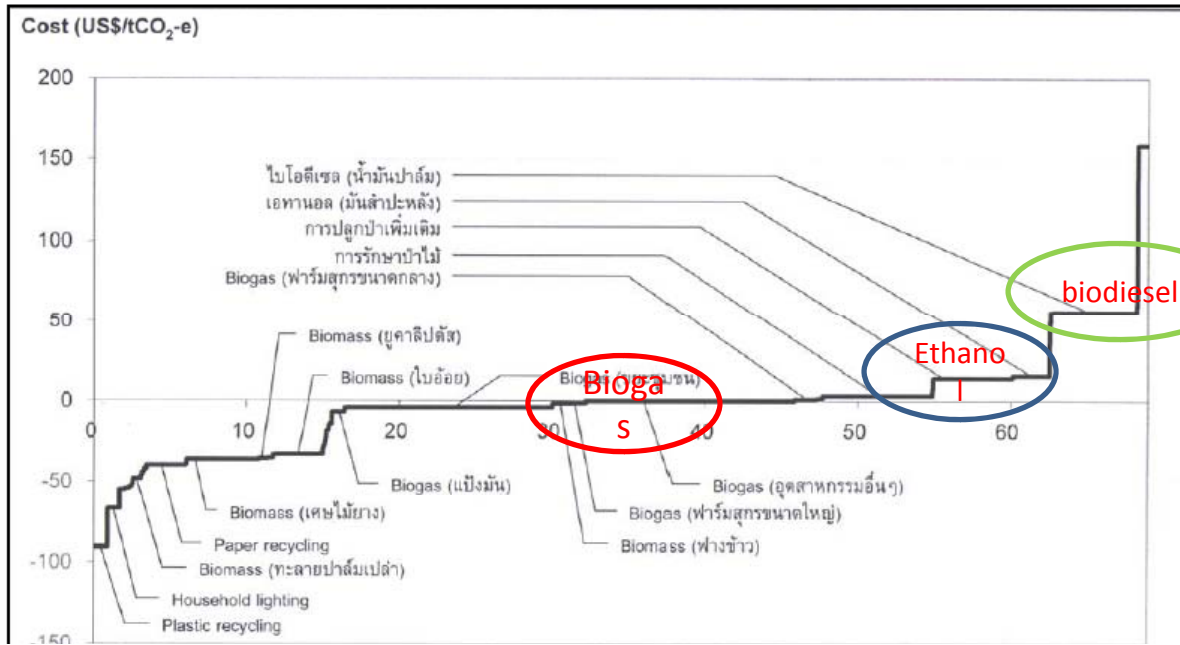
New free bus route has been implemented

Local rice mill has been constructed

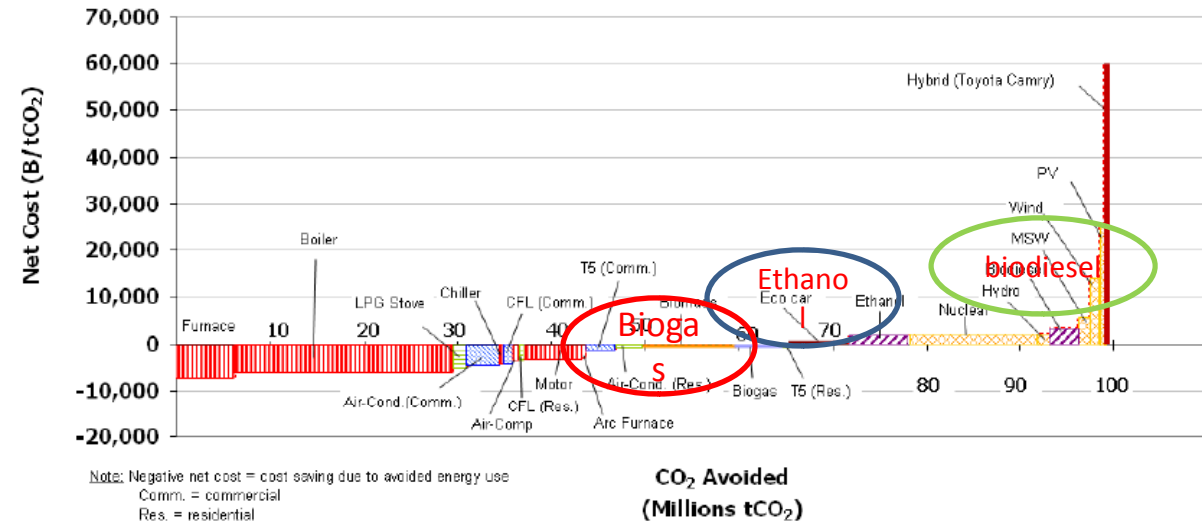


# What are the challenges

- Research has not yet been implemented
  - Level of confidence- duplicate research
  - Not answer to the need
  - Incomplete result
- Message from policy maker
  - Not clear enough
  - Change due to political problems
- Chronological opportunity

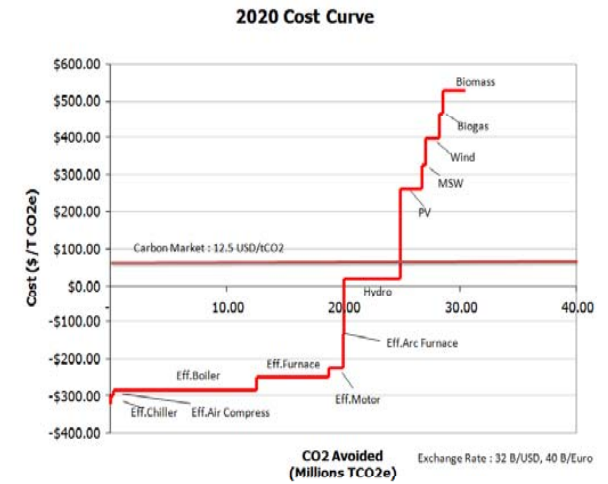


Net Cost Curve of CO<sub>2</sub> Avoided by 2030 for Deploying RE & Efficient EE Technologies



Note: Negative net cost = cost saving due to avoided energy use  
Comm. = commercial  
Res. = residential

## Duplicate Research



## Economics and tools

- Analysis MAC
- Grouping options
  - Negative cost
  - Positive cost

# Key success factors



- Understanding each other
- Platform of relationship forming p
- Good policy research should complete the loop
- Complete the Jigsaw Puzzle
  - Research is a piece of puzzle . Policy will be clearly implemented if the whole jigsaw pieces have been connected.
  - Sometime only one piece is missing
- Clear identification of issues(questions) that policy maker would like to see

# Final Remark

- Good policy is from research
- Good research is from policy makers' action
- Good action is from ourselves

# Acknowledgement

- Thailand Greenhouse Gas Management Organization
- Thailand research Fund
- Energy Policy Project team phase I and phase II
- Mitigation Scenario research team
- Low carbon city pilot project research team

- E policy project
- Status project
- Positioning project focus
- Policy
- Local wisdom
- Community based

