Gland Regional Research Strategies:

'**Research-Policies-Implementation-Evaluation**'

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What are the drivers of development in Asia ?
Population or development

Key Indicators of Carbon Emissions in Asia and the Pacific, 1980–2008

Legend:
- CO$_2$ emissions (MtCO$_2$e)
- Real GDP (PPP, 2000,USD)
- Population (million)
- Energy use (Mtoe)
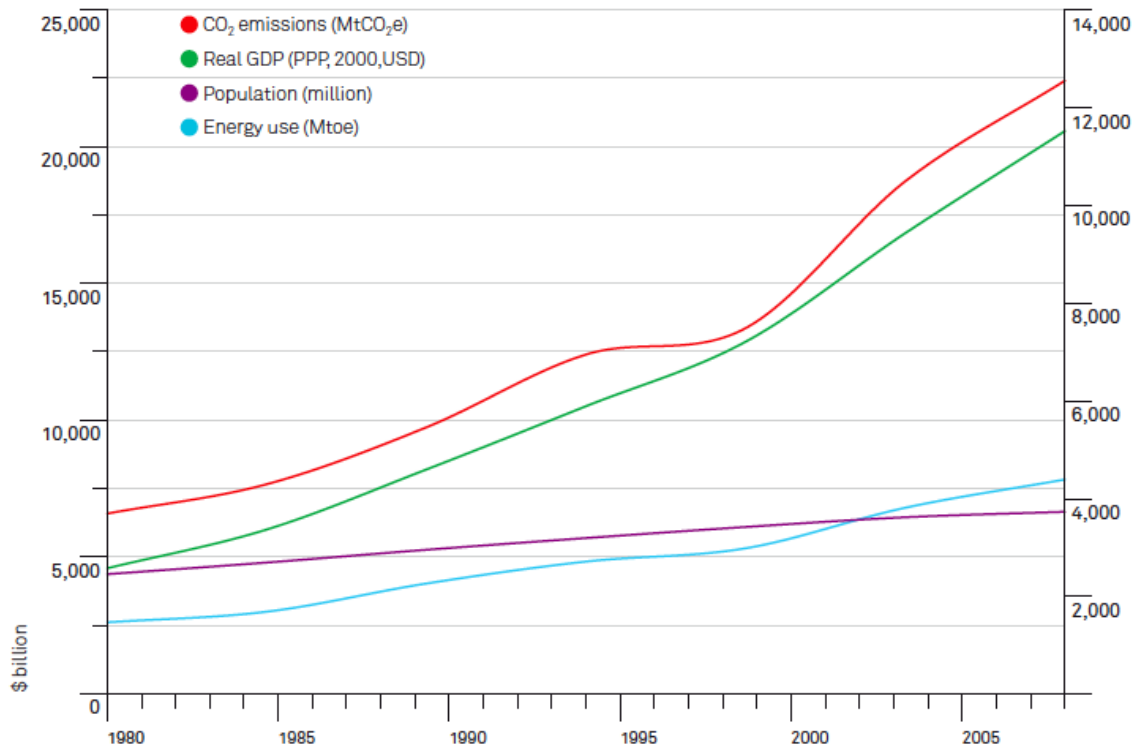
Pop (million)	2010	2030
ASEAN	592	704
ASEAN+4	3206	3790
WORLD	6641	7933
Percent of ASEAN+4	48%	47%

GDP	2010	2030
ASEAN (%world share)	2.98%	4.31%
ASEAN+4 (%world share)	25.72%	35.88%
GDP ASEAN (billion)	1852	5587
GDP ASEAN+4 (billion)	15979	46501
World (Billion)	62124	129547

Derived from low carbon green growth Asia

A key to unlock carbon intensive development

- If population is not the the drivers of future emission in ASIA. Decoupling of GDP and GHG may need the significant role of human resources who are well aware of climate impact and the leapfrog situation.
- Capacity building is a key
  - Collaboration research on regional issue
  - Talent mobility through joint curriculum, regional training
  - Research platform for young scientist and knowledge management
  - Increase human resource both researchers and policy makers

From research to policy and implementation

Researchers
University
Research Institute
NGO

Government
Ministry
Policy maker

Implementers
Local Government
Private sector
Community
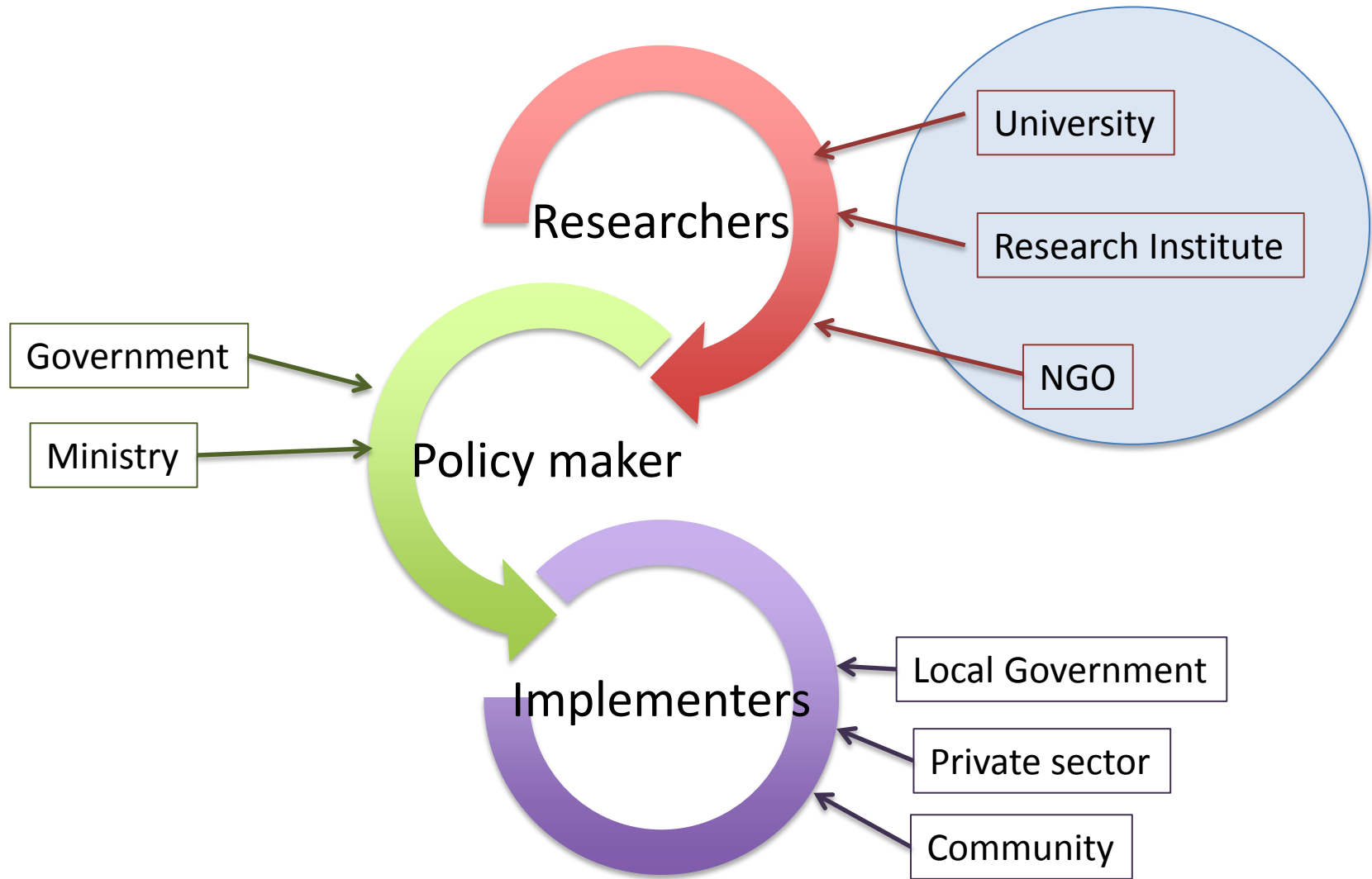
National Strategic plan for Development of Science, Technology and Innovation

20 years planning for Energy Efficiency Implementation in Thailand

Implementation

TGP-EEDP
Thai – German Programme on Energy Efficiency Development Plan

Action

TGP-EEDP
(2013-
2014)

Policy

EE R&D
(2012)

Policy

EEDP
(2011)

Research

STI White
Paper
(2010)

E-Policy
1&2 (2005-
2009)

STI for Energy and
Environment

Potential of RE and EE
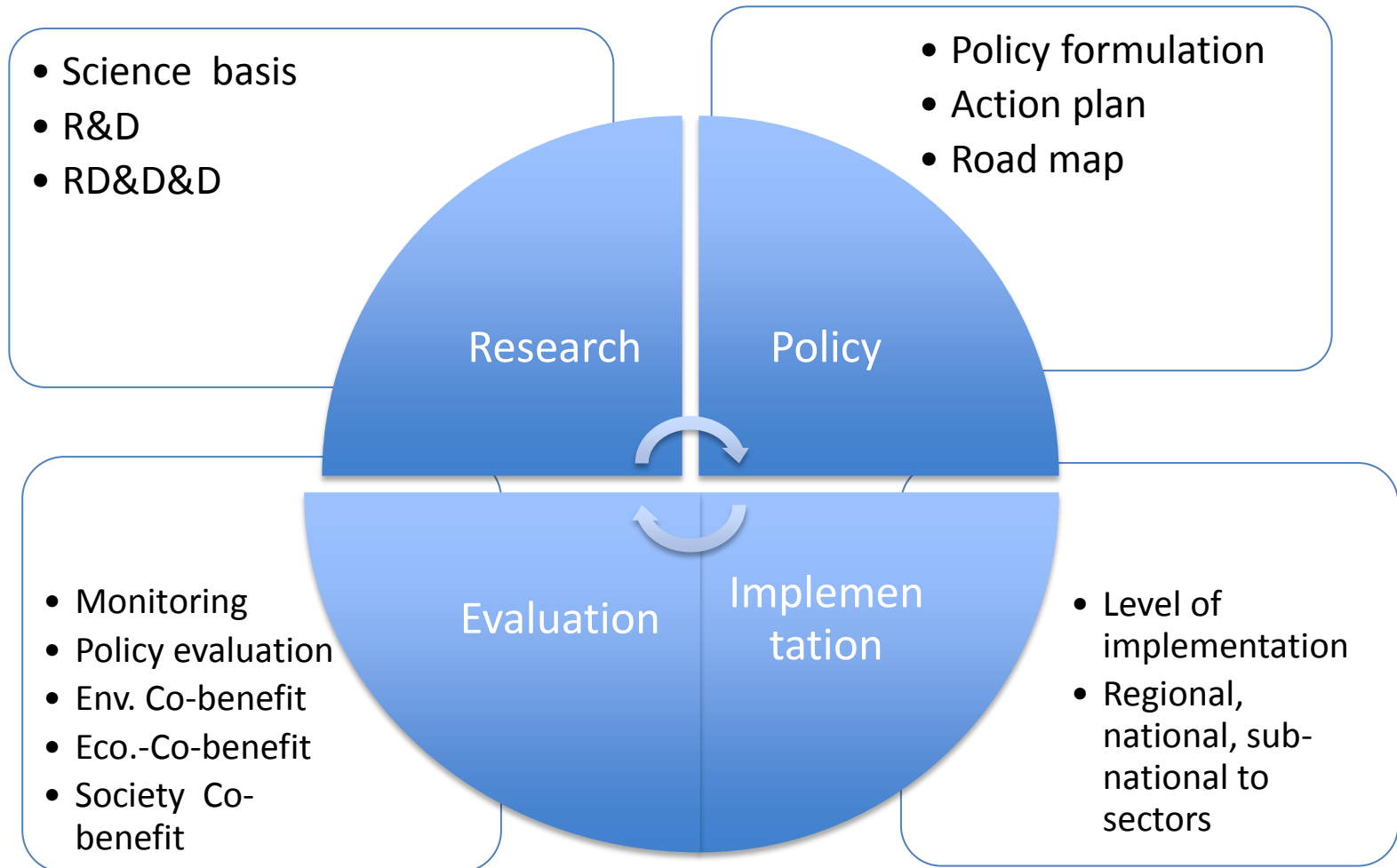Supported by TRF and EPPO

✓ **Increase Energy Efficiency**
✓ **Increase competition capability**
✓ **Reduce fossil fuel import**
✓ **Reduce Household expense**
✓ **CO$_2$ Reduction**

- Baseline and energy data management
- Energy Efficiency standard
- Incentive instruments
- Integration into climate policy

Research-policy-implementation-evaluation

- Science basis
- R&D
- RD&D&D

- Policy formulation
- Action plan
- Road map

Research

Policy

- Monitoring
- Policy evaluation
- Env. Co-benefit
- Eco.-Co-benefit
- Society Co-benefit

Evaluation

Implemen tation

- Level of implementation
- Regional, national, sub-national to sectors

Key success factors

- Leadership
- Triple helix actors
- Multiple benefit
- Local wisdom
- Networking
- Communication
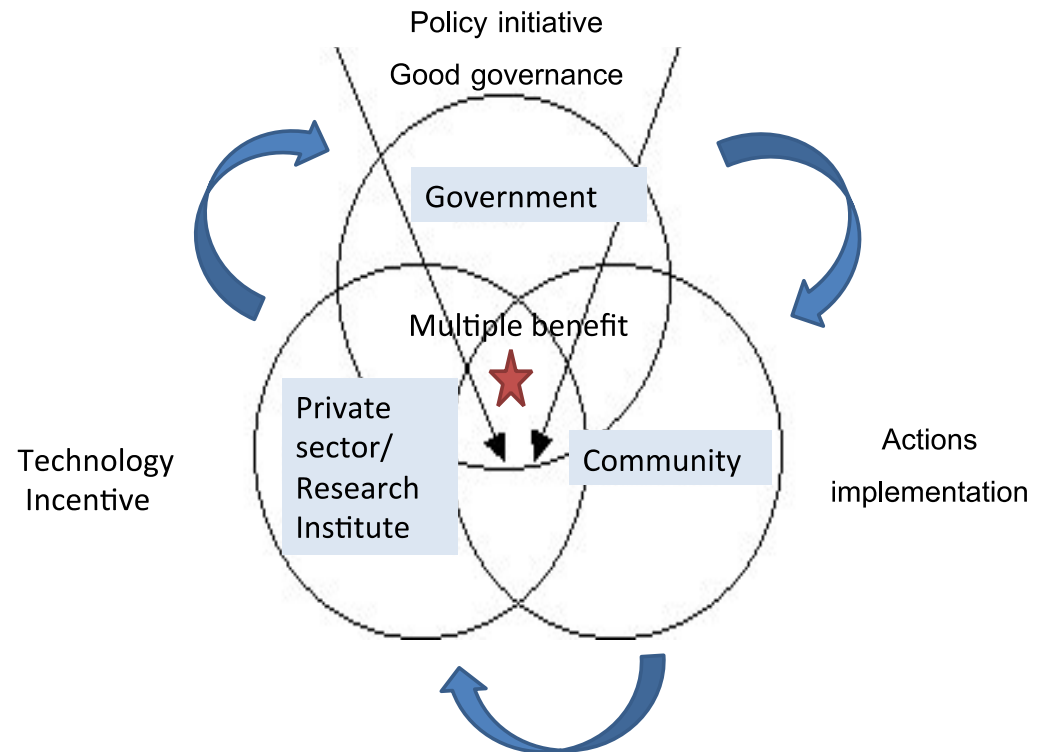
Messages

- Two strategies are proposed
  - Capacity development with joint activities
  - Research to policy to implementation and to evaluation