Institute for Global Environmental Strategies

(Sustainable Cities / Kitakyushu Urban Centre)

Capacity building support of MRV for local governments by IGES/KUC

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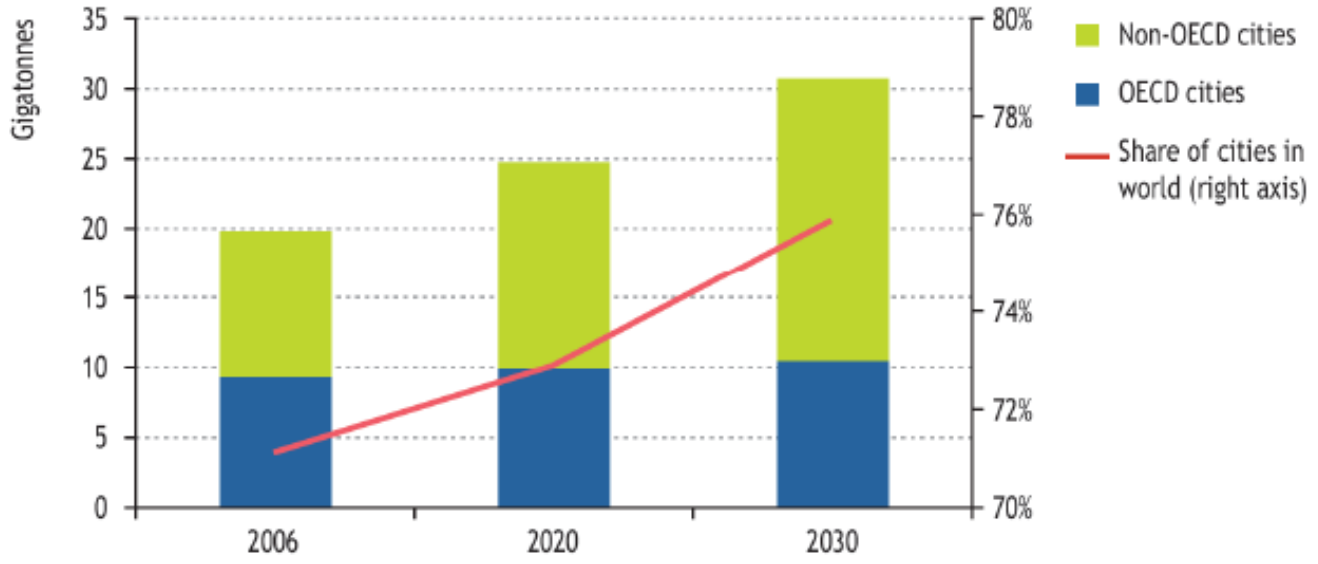
The 12th Workshop on GHG Inventories in Asia (WGIA12)

Session IV: Enhancement of Network for Supporting Measurement, Reporting and Verification (MRV) at various levels

Institute for Global Environmental Strategies

Cities as the largest source of global CO_2



>70% of global energy-related CO2 emissions attributable to cities

Area < 2%

Source: : "WRI GHG Protocol City Project: Experience and Lessons Learned", March 2013, Wee Kean Fong

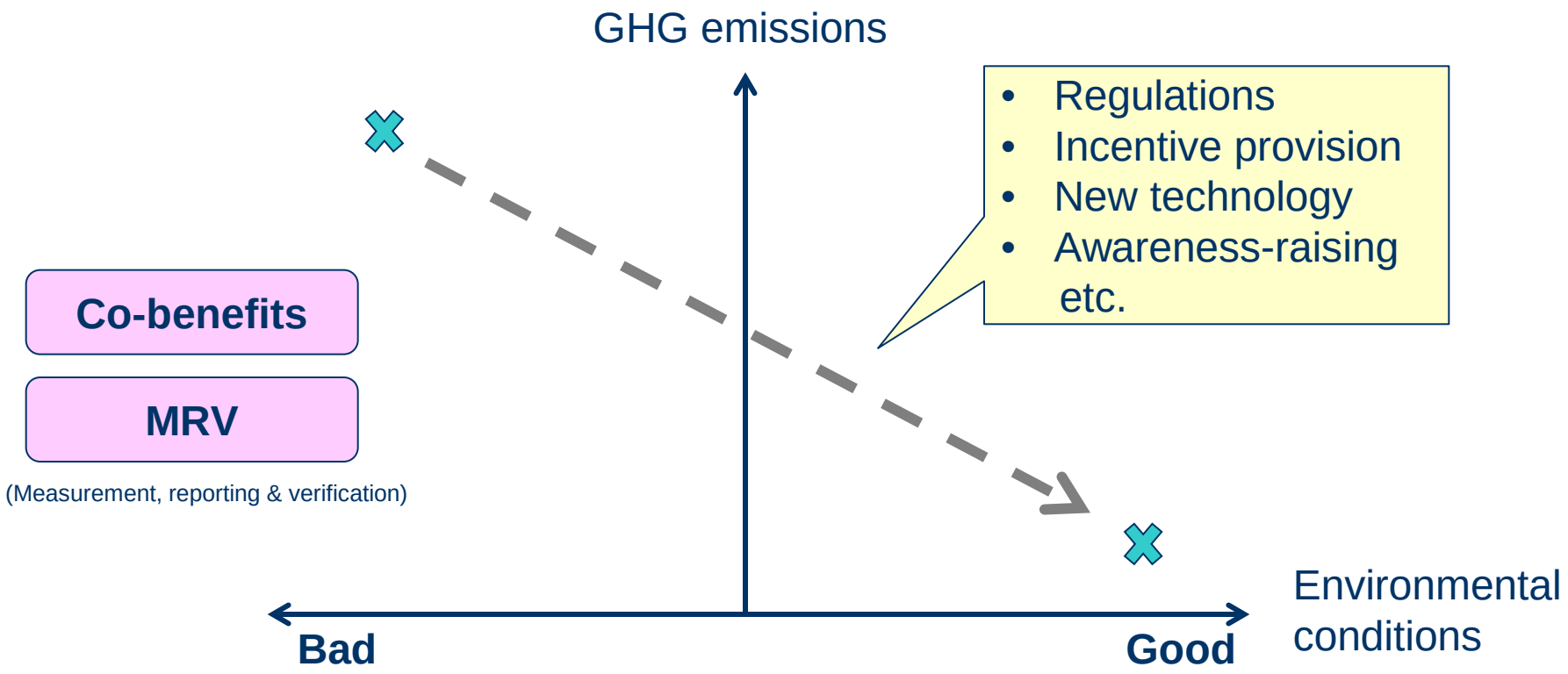
Rapid urbanization causes many problems

Sector	Problems
Energy	Increase in energy demand; Cost; etc.
Transport	Frequent traffic jam; Traffic accidents; Air pollution; etc.
Waste	Improper solid waste management; Odor; Contamination of ground water; etc.
Water	Access to clean water is limited; Lack of wastewater treatment; flood prone; etc.
Green	Diminishing green space; Heat island phenomenon; etc.

Climate change

Quality of life? Sustainable development?

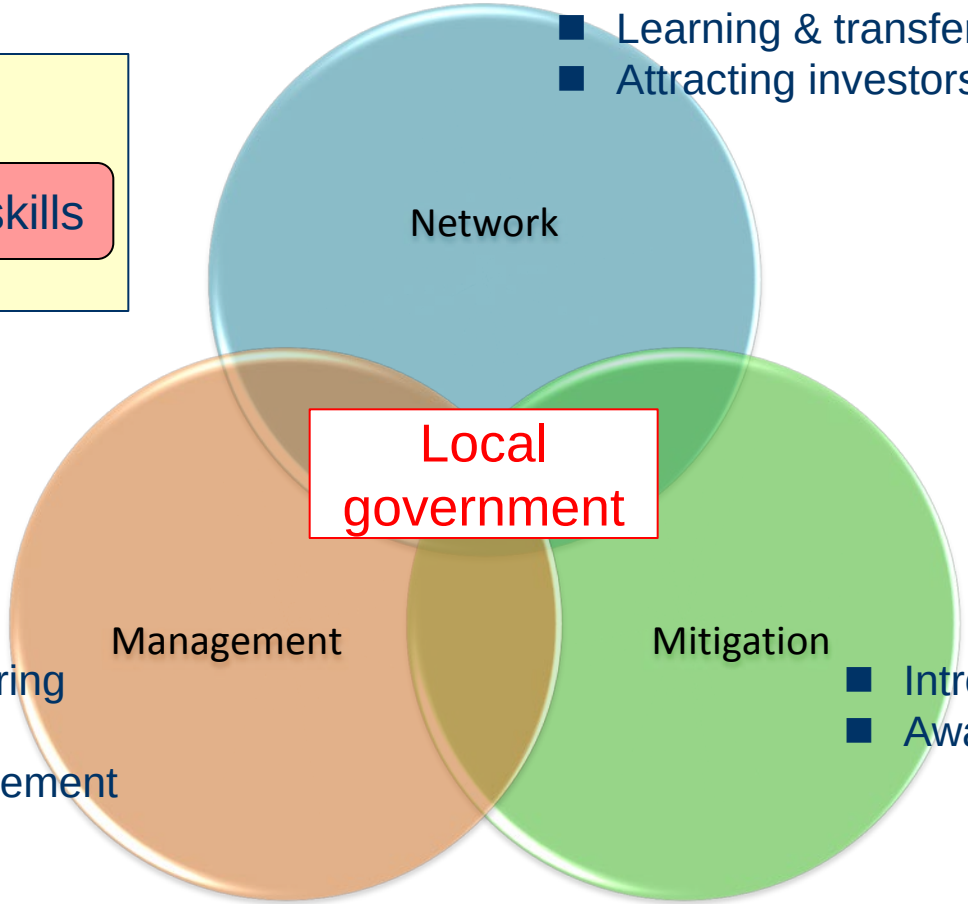
Needs of mitigation actions by maximizing co-benefits



Local governments play an important role

Action plan

GHG accounting skills



- Learning & transferring good practices
- Attracting investors

- Planning & monitoring
- Budget
- Institutional arrangement
- Capacity building

- Introduction of technology
- Awareness-raising

Capacity building on low-carbon city development for local governments in Asia

Background:

Local governments play an important role for realizing sustainable and low-carbon city development.

Needs & Gaps:

- ✓ Clear target setting (vision)
- ✓ Sustainable institutional setup
- ✓ Effective low-carbon policy & measures
- ✓ **GHG accounting skills**
- ✓ Awareness-raising

Capacity building In 5 partner cities

Mandate, Incentive

Target setting

Planning of mitigation actions based on current emission status

Plan

Do

Implementation of mitigation measures

Check

Monitoring the effectiveness of mitigation measures

Action

Review of mitigation measures, action plans

Local gov.

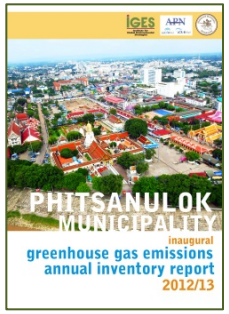
Cebu City, The Philippines
- ✓ Baseline study in different sectors
- ✓ Consideration of mitigation actions

Ho Chi Minh City, Vietnam
- ✓ Action plan development
- ✓ GHG inventory development

Nonthaburi City, Thailand
- ✓ GHG inventory development

Phitsanulok City, Thailand
- ✓ GHG inventory development
- ✓ Launch of rental bike scheme

Surabaya City, Indonesia
- ✓ Feasibility studies on low-carbon technology transfer
- ✓ Estimation of mitigation potentials



First GHG inventory of Phitsanulok City (in prep.)

Our approach for capacity building:

- ➢ JICA NAMA/MRV Training Course in Kitakyushu (3 weeks);
- ➢ On-site workshop with local stakeholders;
- ➢ Baseline studies & sharing good practices of other cities;
- ➢ Support for action plan development;
- ➢ JCM feasibility studies in Surabaya & Haiphong.

Site visit in Kitakyushu City

Workshops in Japan & partner cities

Regional leaders

Horizontal deployment

Co-benefits

Efficient decision making

Rental bike station of "PUN PUN Phitsanulok"

Low-carbon & sustainable cities in Asia!

GHG inventory development status in FY2013

	Surabaya	HCMC	Cebu	Nonthaburi	Phitsanulok
Population	3 million	7 million	0.87 million	0.25 million	0.12 million
Objectives of inventory development	Sustainable low-carbon city development				
	In line with the national policy	In line with the national policy	Municipal government' initiative	-	Mayor's initiative
Producer	BAPPEKO & ITS	HCMC Climate Change Bureau	World Bank	Municipal government	Municipal government
Year	2011	2012	2010	2012	2013
Scope	City-wide	Municipal-level / City-wide	City-wide	Municipal-level	Municipal-level
Gas	CO2, CH4	CO2, CH4	CO2	CO2, CH4, HCFCs	CO2
Guidelines	2006 IPCC GLs	GPC 2006 IPCC GLs	2006 IPCC GLs	ICLEI (2010) WRI (2004) TGO (2010)	GPC 2006 IPCC GLs
Sector	■ Energy ■ Solid waste ■ Wastewater ■ Agriculture & Husbandry	■ Energy ■ Solid waste ■ Water	■ Energy	■ Energy ■ Solid waste ■ Water ■ Fugitive emissions	■ All urban sectors
Data source (AD)	Data from municipality	Data collected by municipality	World Bank (2013)	Data collected by municipality	Data collected by municipality
Data source (EF)	IPCC default values	IPCC default values, IEA , IGES grid EF	-	IPCC default values, TGO, TH database, etc.	Same as Nonthaburi

Some lessons learnt from our experience - 1

1. Challenging **to mainstream climate change** into existing **planning and policy** processes
   - They are aware of the issue, but not a real priority / not fitting with local government legal mandate
2. **Incentives and benefits** for low-carbon city measures are required
   - Measures should be 'no-regrets' and contribute to real economic, social and environmental benefits.
3. **Limited authority of single municipality** in certain sectors such as transport & energy
   - However, local government (municipalities) can still be an effective leader in convening, coordinating and educating local stakeholders such as residents, private sector, schools etc.
   - Local governments can be a source of innovation to influence national policy

Some lessons learnt from our experience - 2

4. "MRV" is a good opportunity to realize existing urban development plans;
   - Chance to attract investments for improving the quality of life.
   - However, local governments need to appeal their capability of GHG accounting skills.
5. Interpretation of guidelines is required (IPCC guidelines, GPC, etc.);
   - Hard to understand for the first readers. Hands-on training would be helpful.
6. National GHG inventory is a good reference for local governments;
   - It indicates data sources. Breakdown data may be available from local departments.
   - Provision of a manual by national governments may be of helpful as part of support for action plan development.
7. Difficult to **sustain data collection** on an annual basis
   - Inter-departmental coordination and cooperation is crucial
   - Leadership from the high-level is essential

Reference: Partly from Shom Teoh (2013) Phitsanulok: Towards a Low Carbon Municipality Mid-term Workshop INTRODUCTION & OVERVIEW, 26 Nov. 2013.

Summary

- City governments play an important role for a sustainable & low-carbon city development;
- Capacity building is needed (incl. technical aspect)
- IGES Kitakyushu Urban Centre provides relevant supports (e.g., GHG inventory development) for city governments in Asia
- National governments can facilitate local governments' actions by providing incentives and support.

THANK YOU FOR YOUR ATTENTION

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IGES Kitakyushu Urban Centre: http://www.iges.or.jp/en/sustainable-city/index.html

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