

# Local Government GHG Inventories in Korea

KECO (Republic of Korea)

Sun-Jung Moon

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# Background & Objectives

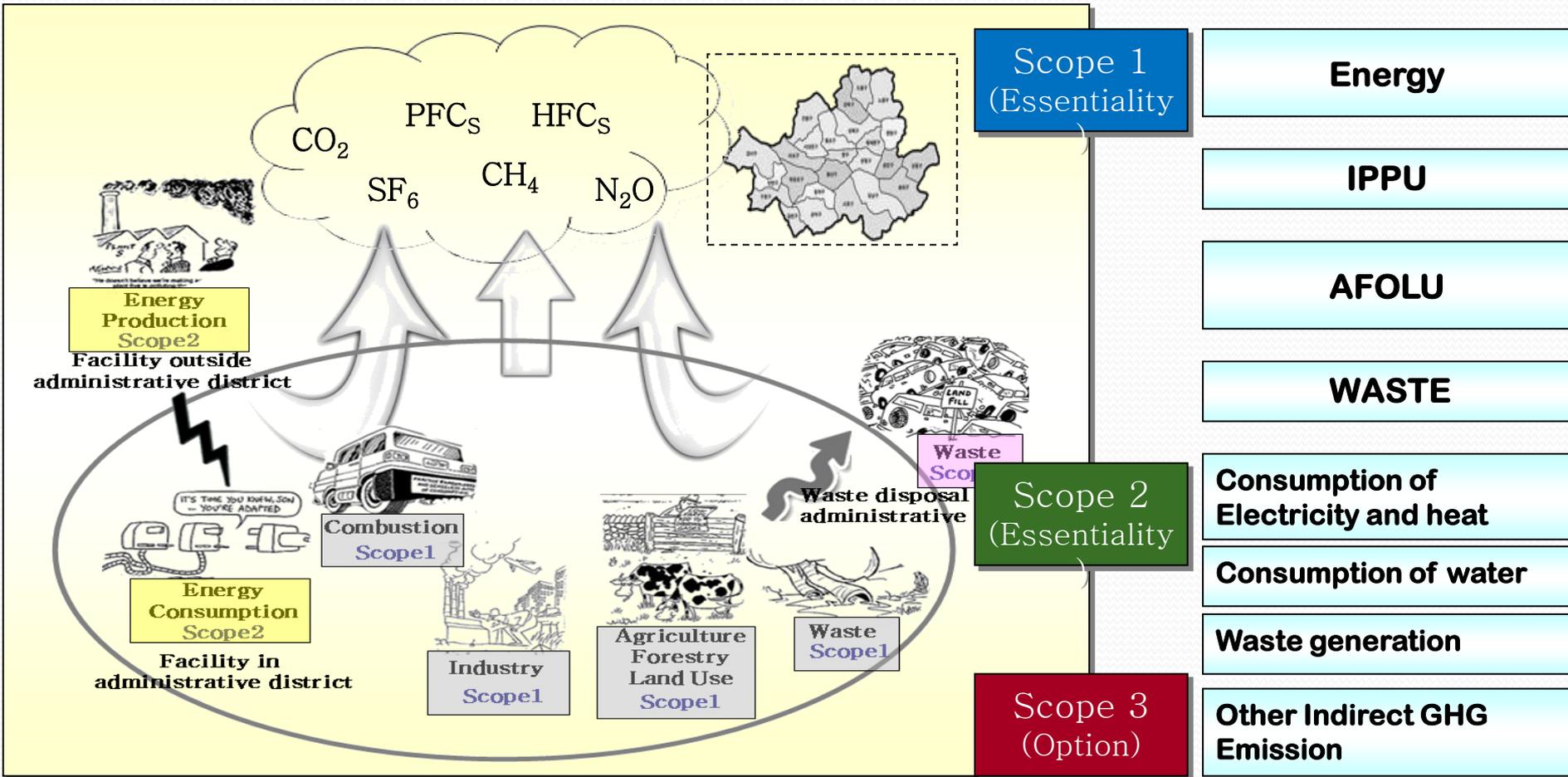
## Background

- ◆ Enforcement of Low carbon, green growth law
- ◆ The lack of skilled experts in Local Government
- ◆ Not comparable inventories among local governments

## Objectives

- ◆ Estimate GHG inventories with high reliability and comparability
  - publish ‘Local Government Inventory Guideline’
- ◆ Foster local climate change & inventory experts
- ◆ Help the local government to create a strategy for reducing emissions

# Concept of Local Government GHG Inventories



# Inventory Guideline by KECO

Reflecting the characteristics of  
a local governments

Classifications			Explanation
Scope1	Scope1-A	Scope1-A-a	<b>Direct managed sources</b>
		Scope1-A-b	<b>Indirect managed sources</b>
	Scope1-B		<b>Direct sources not managed</b> by a local government
	All <b>direct sources(sinks)</b> in a local government		
Scope2	Scope2-A	Scope2-A-a	<b>Direct managed sources</b>
		Scope2-A-b	<b>Indirect managed sources</b>
	Scope2-B		<b>Indirect sources non managed</b> by a local government
	All <b>indirect sources</b> in a local government		
Scope3	Sources <b>managed</b> by a local government <b>out of the administrative district</b>		
	Scope3-A		<b>Direct sources</b>
	Scope3-B		<b>Indirect sources</b>

# Inventory Guideline by KECO

## Reputable GHG Inventory

- ▶ Applying **2006 IPCC G/L**
- ▶ Estimating GHG emissions **on the entire sources**
- ▶ **Support local governments** by national government
- ▶ **Top-down and Bottom-up** method

## The unified Methodology

- ▶ **Fairness** on GHG emissions among local governments
- ▶ **Comparability** among local governments

## Reduction Strategy of local government

- ▶ **Direct manage sources and indirect manage sources**
- ▶ **Direct emissions and indirect emissions**
- ▶ **Overall emissions**
- ▶ Applying the methodology Considering **the management capacity**

# Inventory Guideline by KECO

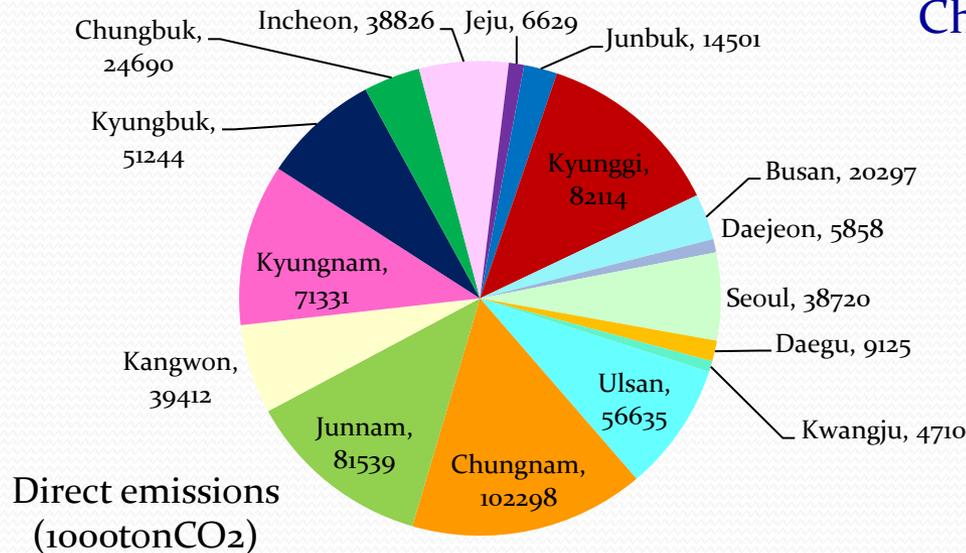
Provision	Explanation
<b>Object</b>	- <b>Local governments</b> in Republic of Korea
<b>Basic scheme</b>	- Apply <b>top-down</b> method (partly bottom-up)
<b>Categories</b>	- Following to <b>categories in 2006 IPCC G/L</b>
<b>Scopes</b>	- Dividing into <b>direct emissions and indirect emissions</b> - Dividing into <b>the managing sources(direct and indirect)</b> and <b>unmanaging sources</b>
<b>Methodology</b>	- <b>Direct emissions</b> : Applying 2006 IPCC G/L - <b>Indirect emissions</b> : Applying national indirect emission factor by year and by sector
<b>Emission factor</b>	- Based on <b>emission factors in 2006 IPCC G/L</b> (partly country-specific emission factor)
<b>Activity data</b>	- Data collected in the <b>competent authorities</b> (National Statistical Office, PEDESIS, local governments etc)
<b>Estimating categories</b>	- Estimating <b>the entire categories in 2006 IPCC G/L</b> (Energy, Industrial Process and Product Use, AFOLU, Waste)
<b>Result</b>	- <b>Direct and indirect emissions</b> by IPCC categories and by managing sources - <b>Overall emissions</b> considering the direct and indirect net emissions
<b>Availability on reduction policies</b>	- <b>Understanding on the net emissions</b> of included areas by separating direct emissions and indirect emissions - Investigation “ <b>production –consumption</b> ” relationship among local governments - Dividing into <b>managing sources (direct and indirect)</b> and <b>unmanaging sources</b> and establishing <b>differentiated policies</b>

# The result of Local GHG inventory in 2009

## Direct Emissions (Scope 1)

- ◆ Massive steam power plants in 'Chungnam' Province and Power stations and iron industry in 'Junnam' Province
- ◆ A wide variety of industrial facilities in 'Ulsan' Province

Year : 2007



Chungnam

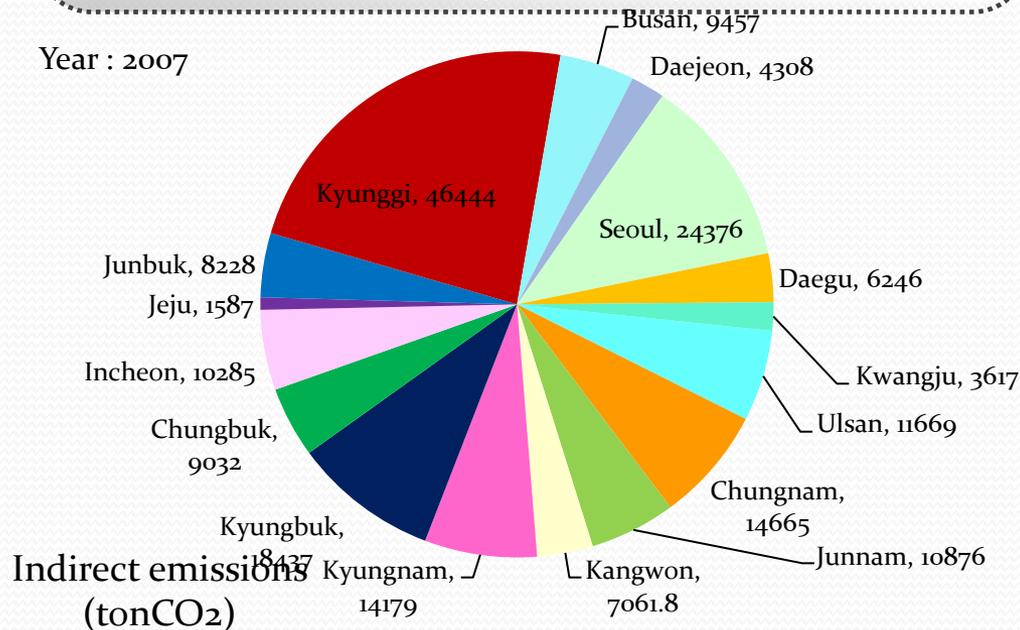


# The result of Local GHG inventory in 2009

## Indirect Emissions (Scope2)

- ◆ Associated with the increase of population and consumption of electricity.
- ◆ Consumption of electricity in industry greatly influences GHG emissions in 'Ulsan' Province (90% of electricity was consumed by industry in Ulsan)

Year : 2007



# Conclusion

## Main business in 2010

- ◆ Provide a revised guideline for local government
  - ◆ Estimate GHG inventory 88 local government (ex. District and city) and 16 province from 2000 to 2008
- All local government of 230 will be estimated in 2011
- ◆ Educate and foster inventory experts in local government
  - ◆ Uncertainty assessment of all estimated local government GHG inventory

# Conclusion

## Positive effect

- ◆ Enables to compare with national and each local governments in a quantifiable and transparent way
- ◆ Utilize GHG inventory as basic data for defining emission sources and establishing reduction strategy for local government
- ◆ Local Government will perform an important role for 'National green growth strategy' by the help of KECO

**Thank you  
for your attention**



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