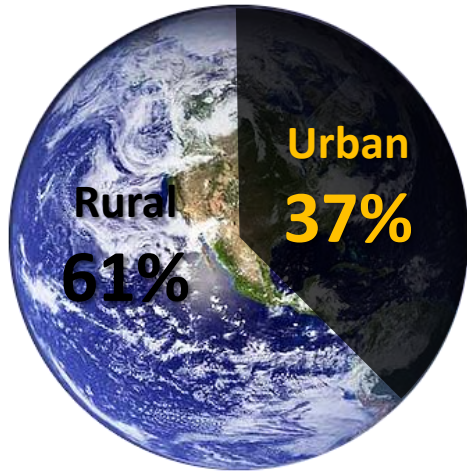


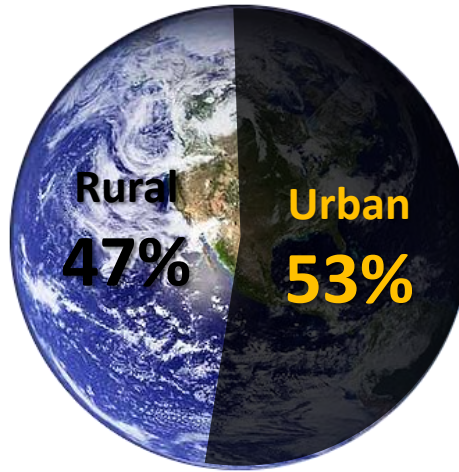
# Low Carbon Development: Voices from the Cities

Presented at the LoCARNet 3rd Annual Meeting,  
24-26 November 2014, Bogor, Indonesia

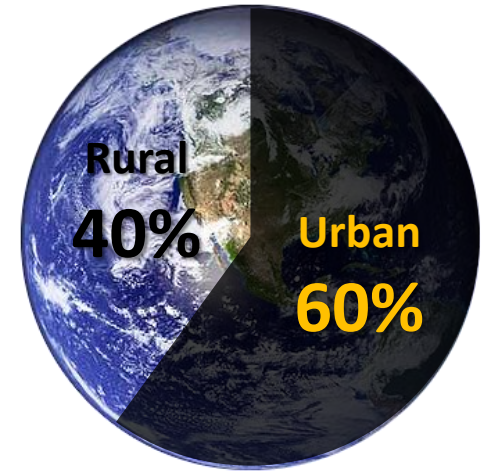
Gina Karina (Program Officer, Urban LEADS Indonesia)  
[gina.karina@iclei.org](mailto:gina.karina@iclei.org)



**1970**



**2014**



**2030**

Source: UN Population Division



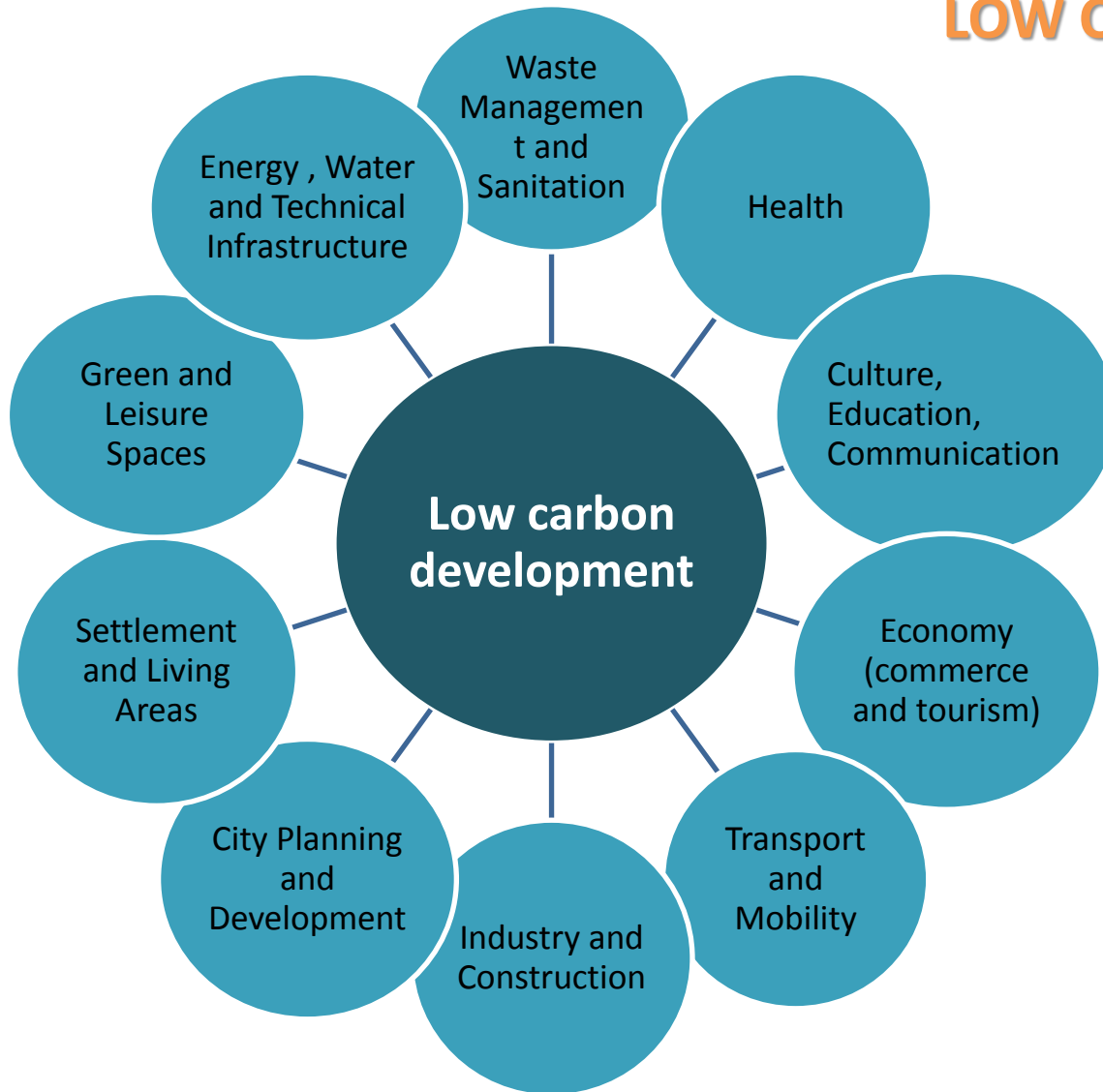
"The road to global sustainability runs through the world's cities and towns. By building more sustainable cities and regions, you will lead us to a more sustainable world."

*Ban Ki-moon, Secretary General, United Nations*

## The Dilemma

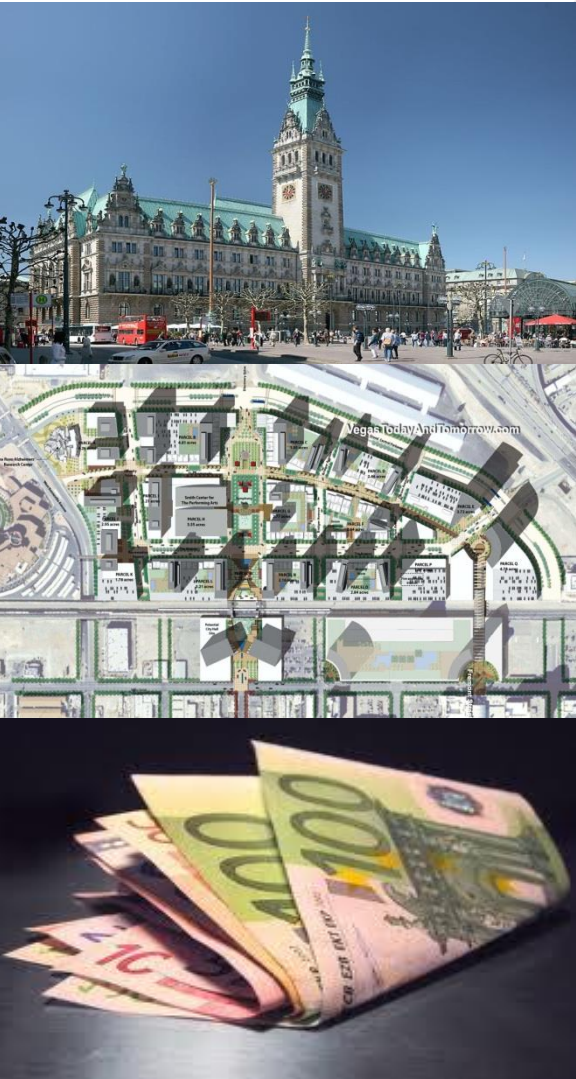
How can we balance human development needs (basic services) while reducing our carbon footprint?





**LOW CARBON DEVELOPMENT:**  
a cross-cutting,  
multi-sector issue

# What levers does the City Government have?



**Regulatory** - Laws, by-laws, permits, fines

**Planning** - Spatial Planning, Development Planning

**Financial** - Taxes/levies, subsidies

**Market** - Procurement

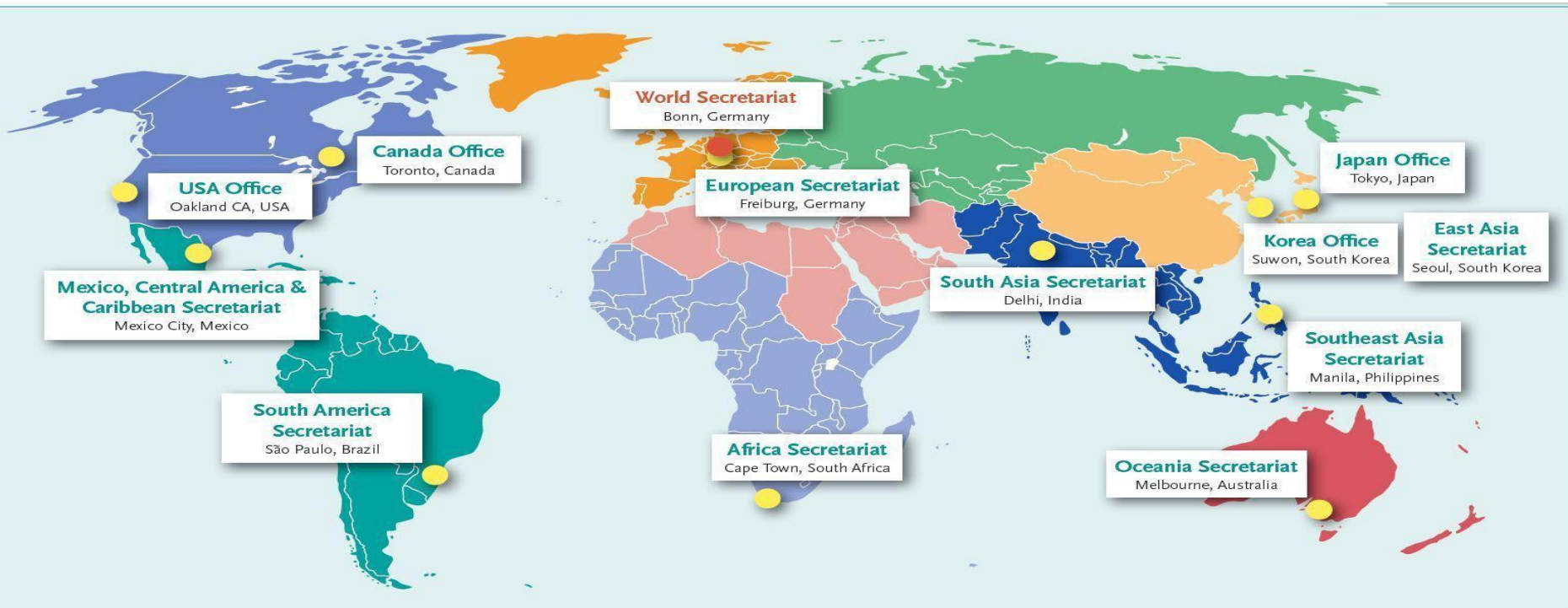
**Operations** - infrastructure and services

**Persuasion** - Information, campaigns



# What is *ICLEI*?

International local governments association which officially represent the interest of cities on sustainable development and climate change in UN bodies. Currently works with 1200 city member in 60 countries.



# ICLEI's 8 Urban Agendas



1. *Sustainable city*
2. ***Low-carbon city***
3. ***Disaster & climate-resilient city***
4. *Resource-efficient city*
5. *Biodiverse city*
6. *Green infrastructure*
7. *Green urban economy*
8. *Healthy & happy community*

# ICLEI's Low-Carbon City Agenda

Towards **low-emission and carbon-neutral** communities  
**air quality**

- greenhouse gas emissions accounting and inventories
- low emission development

Global Agenda is coordinated by the **Bonn Center for Local Climate Action & Reporting (carbonn Center)**.



**carbonn**<sup>TM</sup>  
**bonn center for  
local climate action and reporting**

Technical support

**ICLEI's Low-carbon City  
Agenda**



GPC



Global processes

**carbonn Climate  
Registry (cCCR)**



Durban Adaptation  
Charter



Advocacy

**Global Climate  
Advocacy**



**United Nations**  
Framework Convention on  
Climate Change



**World Mayors**  
Council on  
Climate Change

**Mayors  
Adaptation  
Forum**



**Local Government  
Climate Roadmap**  
Recognize • Engage • Empower

# Compact of Mayors

an **unprecedented agreement** by the three major city networks:



to commit to mobilize members, other cities, networks and initiatives, to undertake a **transparent** and **supportive approach** to

- reduce **city-level emissions**,
- reduce **vulnerability**, and
- enhance **resilience to climate change**,

in a **consistent and complimentary** manner to **national level** climate protection efforts.

# Compact of Mayors

*The Compact of Mayors* builds on the ongoing efforts of Mayors that increasingly set **ambitious, voluntary city climate commitments or targets** for GHG emissions reduction & to address climate risk.

Robust, rigorous and consistent reporting standards (as established through City Networks) will be made publicly available by reporting through a recognized reporting platform, with the



being the designated repository for Compact-related data.



C40, ICLEI, and UCLG Leader at the launch of the **Compact of Mayors** today at the **UN SG's Climate Summit, September 23, 2014 in New York**

23.09.2014

## Existing city commitments alone could reduce emissions by a total of 13 GtCO<sub>2</sub>e by 2050

New research by the parties to the Compact of Mayors, along with research partner Arup, indicates that existing city commitments alone could reduce annual emissions by *454 Megatons CO<sub>2</sub>e in 2020* -- a total of 13 Gigatons CO<sub>2</sub>e by 2050.

The research was conducted by C40 Cities Climate Leadership Group (C40) and Arup, in partnership with ICLEI-Local Governments for Sustainability (ICLEI), United Cities and Local Governments (UCLG), UN Habitat, the UN Secretary- General's Special Envoy for Cities and Climate Change and the World Resources Institute. Cities were selected from key global city sustainability network champions, including C40, UCLG and ICLEI to assess the existing public commitments that cities have voluntarily made to reduce their GHG emissions in order to catalyze more ambitious climate commitments.

GHG reduction commitments matter because they drive action and further investment in cities. City governments with emissions reduction targets report three times as many emissions reduction activities as cities without targets. By demonstrating the impact of cities' climate commitments on a global scale, this report is a first step in delivering the vision of the global Compact of Mayors, the world's largest effort for cities to tackle climate change. The Compact will enable cities to publicly commit to deep GHG emissions reductions, make public existing targets and plans, and report on their progress annually, using a newly-standardized measurement system that is compatible with existing protocols.

Source:

<http://carbonn.org/news/article/existing-city-commitments-alone-could-reduce-emissions-by-a-total-of-13-gtco2e-by-2050/>

# Notable member

- Mayor George Ferguson (Bristol, UK)
- Mayor Bima Arya (Bogor, Indonesia)
- Mayor Herbert Bautista (Quezon City, Philippines),
- Mayor Jürgen Nimptsch (Bonn, Germany),
- Mayor Frank Cownie (Des Moines, USA),
- Mayor Ronan Dantec (Nantes)



***Urban LEADS***

# Indonesia City-level Commitment & Initiative



# URBAN LEADS

URBAN LOW EMISSION DEVELOPMENT STRATEGIES

*Delivering low-emission development in 8 model cities in 4 emerging economies*



3 year project (2012 –2015)

Working across 4 countries through ICLEI regional offices

## **Countries:**

- Brazil
- India
- Indonesia
- South Africa
  
- (and Europe)

## **In each country:**

- **2 Model Cities**
- **4-5 Satellite Cities**

# Urban-LEDS Cities



# What is *Urban-LEDS*?

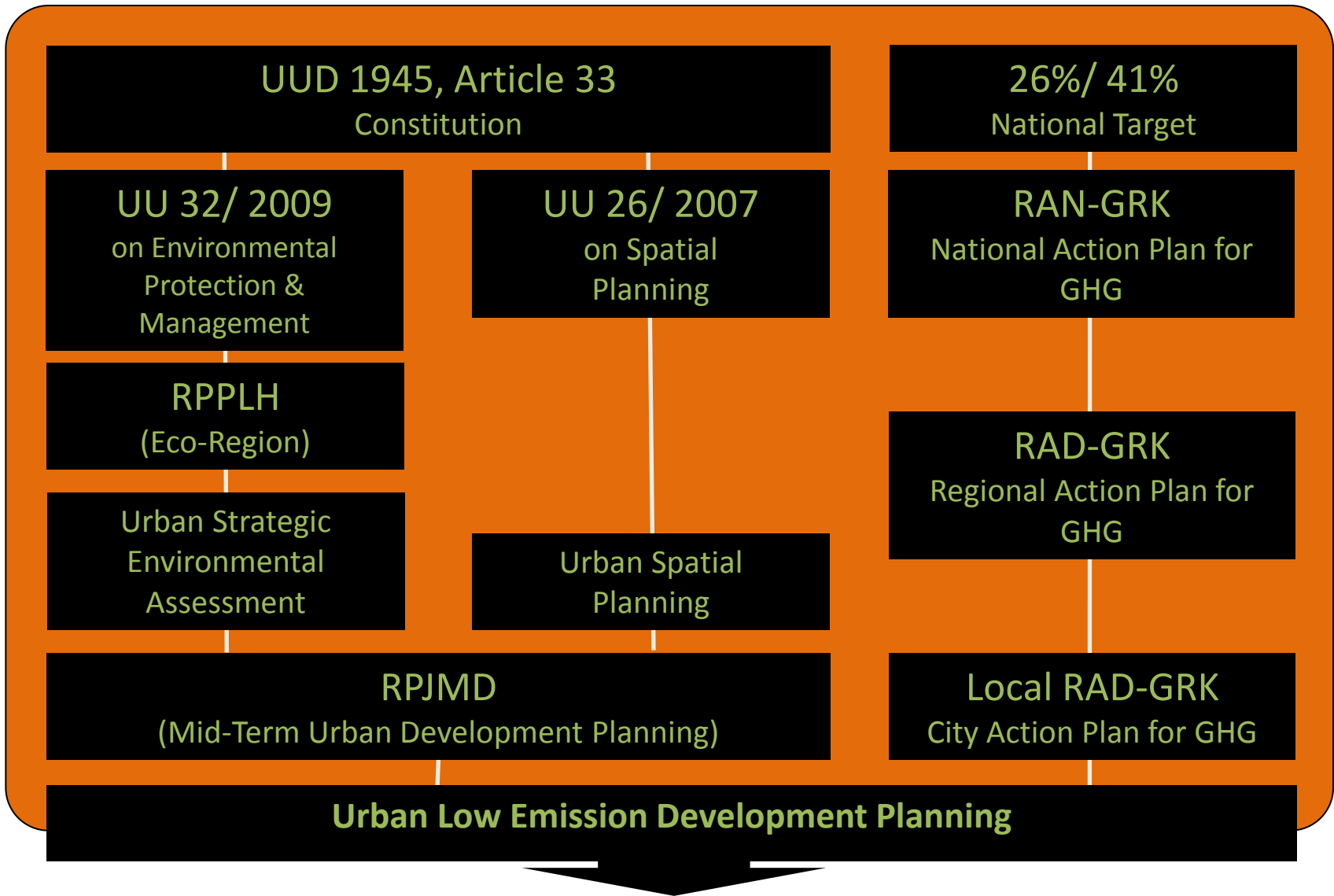
A program that will defines a **pathway to transition** a community to a low-emission, green and inclusive urban economy, through its **integration** into **city development plans** and **processes**.

# GreenClimateCities program



- Process for local governments
  - Start-up / advanced levels
  - Global North and South
- Concise methodology
- Guidance and tools offered
- MRV process for the GCC program





UUD 1945, Article 33  
Constitution

26%/ 41%  
National Target

UU 32/ 2009  
on Environmental  
Protection &  
Management

UU 26/ 2007  
on Spatial  
Planning

RAN-GRK  
National Action Plan for  
GHG

RPPLH  
(Eco-Region)

RAD-GRK  
Regional Action Plan for  
GHG

Urban Strategic  
Environmental  
Assessment

Urban Spatial  
Planning

RPJMD  
(Mid-Term Urban Development Planning)

Local RAD-GRK  
City Action Plan for GHG

Urban Low Emission Development Planning

**LIVEABLE CITIES**

# Bogor City

## Priority Identification and Cost Extended Benefit Analysis

Program	SOC. (benefit)	ECON. (rev. to Gov.)	ENV. (GHG red.)	SUST.	Added Value	MRV	Fund	SUM
Green building and retrofiting	5 Protecting occupant health and improving employee productivity	5 Savings in money come from more efficient use of utilities which result in decreased of energy bills	5 Huge potential of GHGs reduction and other pollutants will have large positive impacts on surrounding communities	4 Cheaper maintainance cost	5 Green building have higher rent, sell price and a high occupancy rate, profing it as a low investement risk	V	V	29
Transport Demand Managment & Transit oriented Development	5 Subsidizing transit costs for employees or residents	5 Provide incentives and rewards.  Road pricing toll on peak hour	5 Transport systems are responsible for 23% of energy-related GHG emissions. TDM is central effort to reduce GHG emissions from urban transportation.	5 TDM leverage public and private funds to increase the possibilities of maintenance cost	5 Improving public transportation infrastructure	V	V	25
Waste to energy	4 Produce only a small amounts (during the manufacturing) few air and water pollutants, wastes and land disruption.	3 Energy source into surranging community that can reduce the dependency to fossil based electicity	4 This initiative initiate a sort from of circular economic where waste being use as source of Renewable energy that produce zero or few greenhouse gas emissions	5 Maximizing renewable energy and energy efficiency on a national and regional level will reduce our dependence on imported fuels. This will benefit domestic energy security and reduce price	5 This initiative encouraging the cocking habit to cook without harming our health and environment, produce power without mercury emissions	V	V Limited	21

# Bogor Mid-Term Development Plan 2015-2019



## Vision #3:

### Developing an environmental friendly and low emission city

#### Low Emission Vision:

**Transform Bogor into a low-carbon city supported by regulations and policies, and ensure to improve its climatic condition by mitigate GHG emission factor in the city.**

#### *Pressure Point 2014 – 2019:*

- Improving Bogor city environmental quality and capacity,
- Improving Bogor city spatial planning quality and implementation,
- Improving the city building standardization using LED technology
- Developing urban transport that promotes mass transportation, pedestrian and cyclists
- Encourage urban development responsive disaster risk and climate change impacts



# LEDS Programs in Bogor City's Development Planning (RPJMD & KLHS)

- Develop GHG inventory
- Develop pedestrian & bike way, in cooperation with GIZ-SUTIP
- Adoption of *Green Building* concept to the current DED for Bogor City's House of Representative
- Retrofitting all city building into using LEDS bulbs
- Develop low emission transportation system, improve transport service accessibility as well as public transport service quality
- Facility & infrastructure study for pedestrian & TOD at Lawang Taleus integrated station

# Balikpapan City Priority Identification and Cost Extended Benefit Analysis

Program	SOC. (benefit)	ECON. (rev. to Gov.)	ENV. (GHG red.)	SUST.	Added Value	MRV	Fund	SUM
GB & Retrofitting (on government building)	5 Protecting occupant health and improving employee productivity	5 Savings in money come from more efficient use of utilities which result in decreased of energy bills	5 Huge potential of GHGs reduction and other pollutants will have large positive impacts on surrounding communities	4 Cheaper maintenance cost	5 Green building have higher rent, sell price and a high occupancy rate, proving it as a low investment risk	V	V	29
W2E (solid waste)	4 Produce only a small amounts (during the manufacturing) few air and water pollutants, wastes and land disruption.	3 Energy source into surrounding community that can reduce the dependency to fossil based electricity	4 This initiative initiate a sort from of circular economic where waste being use as source of Renewable energy that produce zero or few greenhouse gas emissions	5 Maximizing renewable energy and energy efficiency on a national and regional level will reduce our dependence on imported fuels. This will benefit domestic energy security and reduce price volatility.	5 This initiative encouraging the cooking habit to cook without harming our health and environment, produce power without mercury emissions	V	V Limited	21
Street Lighting (LED or Solar)	5	1	4	5	3	V	V	18

# Bontang City Priority Identification and Cost Extended Benefit Analysis



Program	SOC. (benefit)	ECON. (rev. to Gov.)	ENV. (GHG red.)	SUST.	Added Value	MRV	Fund	SUM
Rainwater harvesting,	5 Provide alternative water source for drinking water and sanitation	5 Revenew from water supply services	5 Avoding the use of surface and ground water source and land use change	5 cheap maintainace cost	5 The facilities can be also use as water source for urban farming	-	5 City Budget, Province Budget or CSR Forum Budget	30
Green building & Retrofitting at city building and public space	3 reduction of electricity cost in yearly basis	3 Tax revenew	5 Potential GHG reduction by Efficientl using of energy, water, and other resources	5 Cheaper maintainance cost	5 Green building have higher rent, sell price and a high occupancy rate, profing it as a low investement risk	-	4 Public Private Partnership	25
Shifting to renewbale energy in municipal fleet	2 Meet the needs of people in term of equitable and efficiency because no future burden for next generation	1 cost of renewable energy is related mostly to the repayment of invested capital and is not dependent on the fluctuating and increasing cost of an international resource such as oil or uranium	4 Minimal or no Environmental impact and a huge potential of urban GHG reduction	3 More stable	2 not deplete natural resources	-	1 Not available yet	13

# Barriers

- Lack of incentives (financial)
- Lack of vertical integration
- Institutional weaknesses and differences (superior/inferiority, mutation)
- Lack of capacity

# Breaking through...

Engaging political leader,  
second line and third line  
decision making official

Form alliances and  
partnership

Harmonize policy and  
action

Effective, efficient and  
equitable

Bottom up engagement  
and synergy

Comprehensive and solid  
planning

Focus on either ongoing  
or already planned  
activities

Powerful MRV system

Capacity Building





**"For over two decades, ICLEI has been advocating for the appropriate recognition, engagement and empowerment of cities and local governments to tackle climate change. The Local Government Climate Roadmap maps out the international advocacy journey begun in 2007 in Bali."**

**- David Cadman, ICLEI President**



ICLEI City Members are now setting bolder targets of slashing 40, 70, 100% of GHG emissions by 2050 and improving city-scale climate change resilience action.

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