

● **No.4 "Indices to facilitate sustainable urban development"**

	City/Organization	Title	Name
1	Baguio	City Environment and Parks Management Officer	Ms. Maria Adelaida Coloma Lacsamana
2	Colombo	Municipal Treasurer	Mr. Korlage Don Chithrapala
3	Seberang Perai	Mayor	The Honorable Maimunah Mohd Sharif
4	Makati	Senior Advisor, Office of the Mayor	Ms. Violeta Somera-Seva
5	CITYNET / World Resources Institute	Secretary General / Senior Fellow	Dr. Vijay Jagannathan
6	Institute for Global Environmental Strategies	Area Leader, Principal Policy Researcher	Mr. Kazuhisa Koakutsu
7	Ministry of Economy, Trade and Industry, Japan	Principal Deputy Director	Mr. Hiroaki Machii
8	Ministry of the Environment , Japan	Director, International Cooperation Office	Mr. Nobuhiro Kino
9	UN-Habitat	Human Settlements Officer	Mr. Laxman Perera
10	World Bank	Lead Urban Specialist	Mr. Victor Manuel Vergara
11	Yokohama City University	Senior Project Manager, Global Cooperation Institute for Sustainable Cities	Prof. Hidefumi Imura
12		Professor Emeritus, Seikei University / Special Advisor for Y-PORT Center	Prof. Ryokichi Hirono

INDICES TO FACILITATE SUSTAINABLE URBAN DEVELOPMENT



Presented by

MARIA ADELAIDA C. LACSAMANA

City Environment and Parks Management Officer

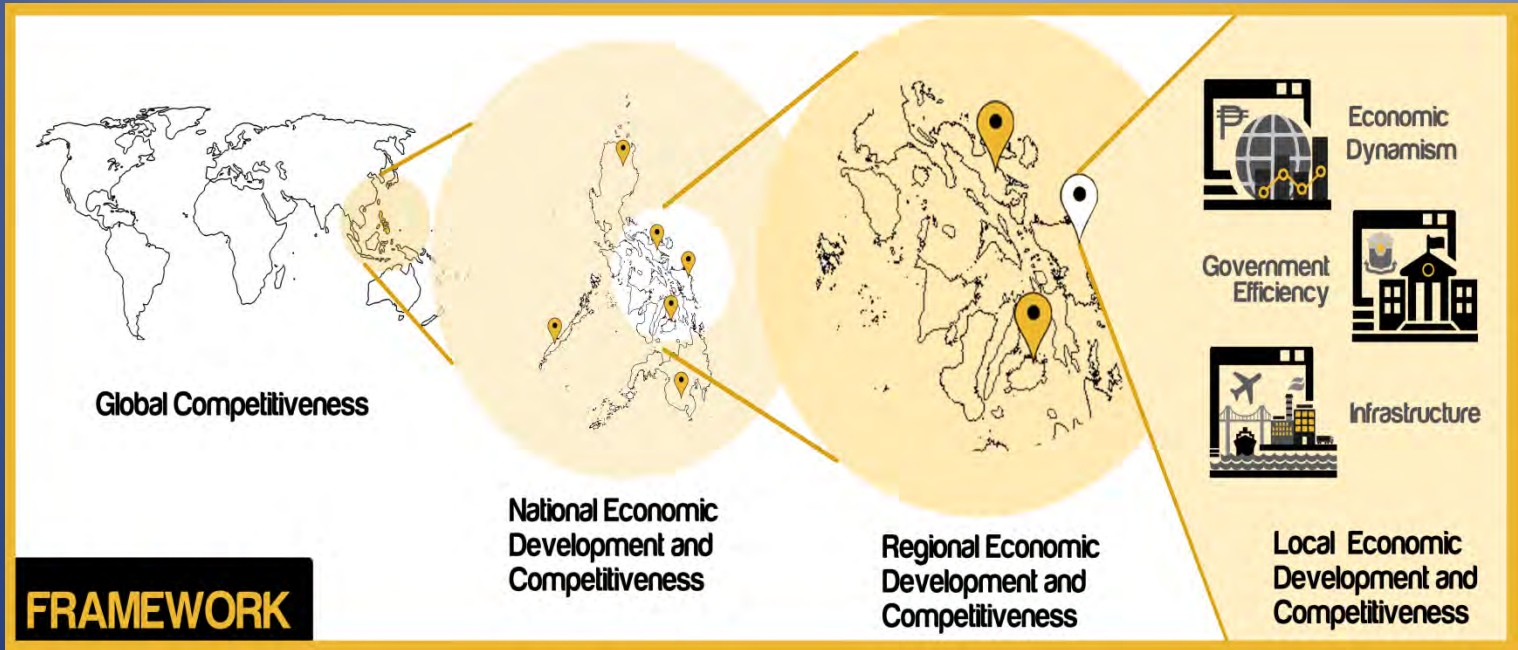
4th SMART CITY CONFERENCE

October 19-21, 2015

Yokohama City, Japan

VISION

Promote a more competitive Philippines and instill a culture of excellence, through public-private sector collaboration as means to reduce poverty through inclusive growth.



FRAMEWORK

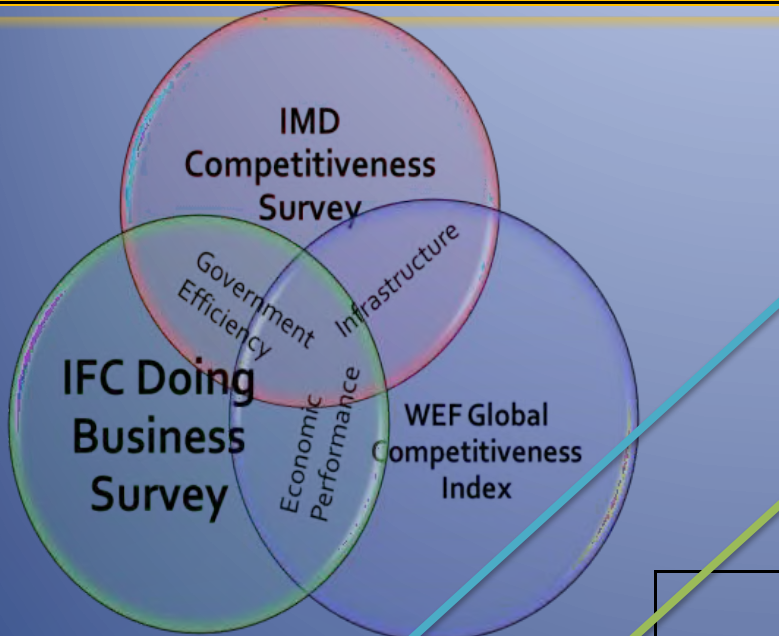
MISSION

•Implement the action agenda with private sector initiatives that support public policies



CONVERGENCE OF FACTORS

**G
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**10 Indicators
19 Sub-Indicators**

**8 Indicators
21 Sub-Indicators**

**10 Indicators
19 Sub-Indicators**

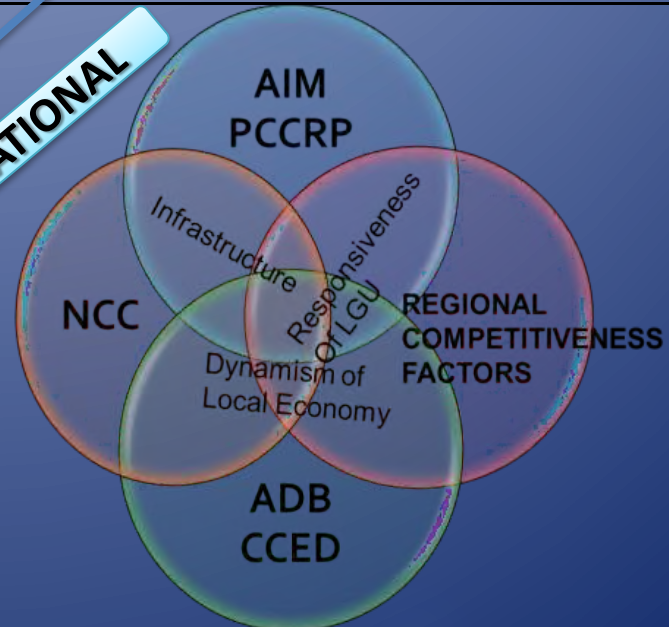
Government Efficiency

Economic Dynamism

**CORE
PILLARS**

INFRASTRUCTURE

SUB - NATIONAL



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BENEFITS:

- Directs a clear pathway into urban development
- Provides basic & precise data for planning, policy formulation and decision-making.
- For the academe, it is an interactive opportunity for research, data management & scenario building as well analysis.

CHALLENGES

- Difficult to gather data at city
- Sustainability of data collection affected by funding
- Time lag in national data surveys

DRIVING TOWARDS A SMART CITY



K D Chithrapala

City of Colombo, Sri Lanka

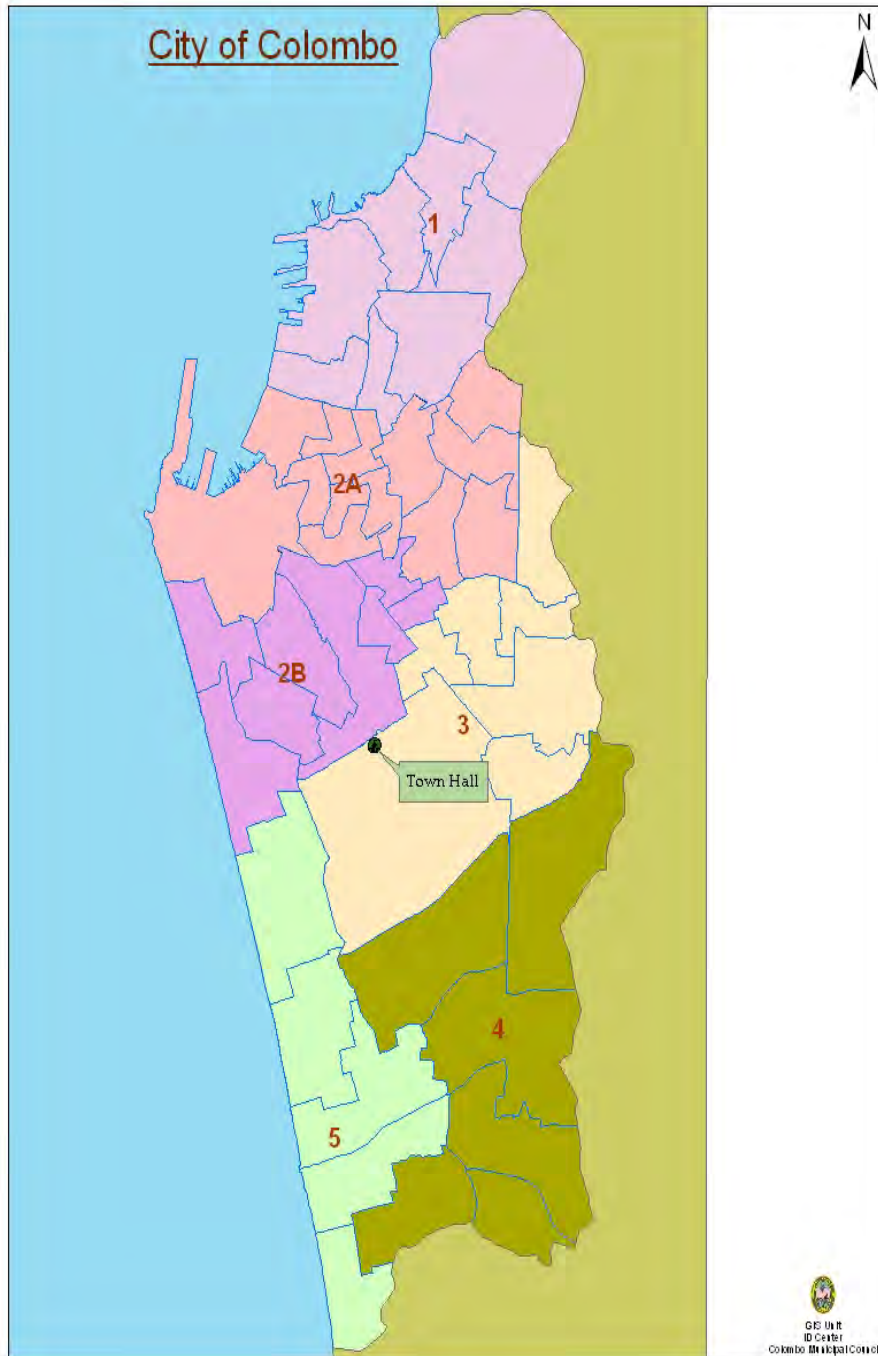
20th October 2015

...City of Colombo is the financial & commercial capital of Sri Lanka with 555,031 inhabitants and a 500,000 daily floating population. The City covers an area of 37 Sq. Km. consisting of approx. 120,000 number of housing stock.



CITY OF COLOMBO

- Divided into six districts and 47 wards for its administrative purposes
- About 1700 under served settlements (USS) located within the CMC area. (nearly 50% of the population live in these USS)
- Unique character of these settlements is that relatively small in size. 74% of them have less than 50 houses large settlements with more than 500 units accounts for about 0.7% of the urban poor settlements



PUBLIC DAY

Better access to meet the Mayor, Deputy Mayor & Senior City officials at one location
To find solutions to unsolved problems

Public Day is held every
Wednesday from 10 am.



CREATION OF URBAN SPACES

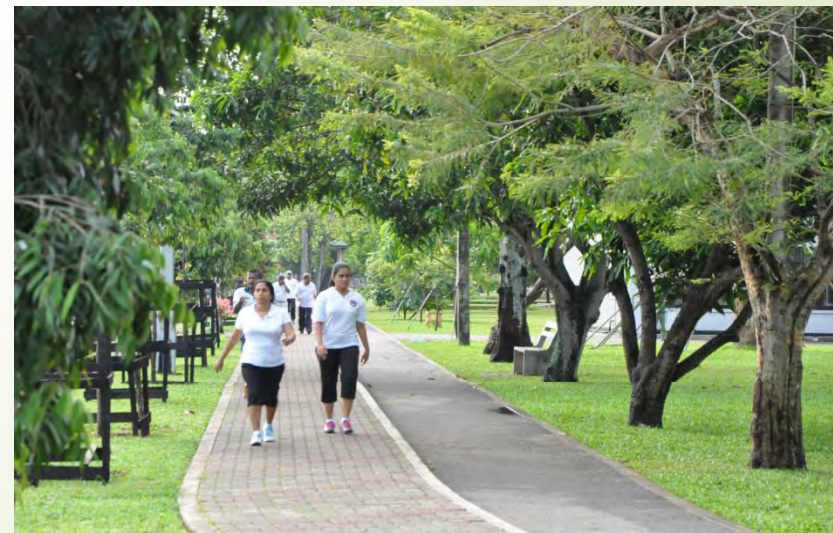


SPORTS & RECREATION

FACILITIES



WALKABILITY IMPROVEMENT



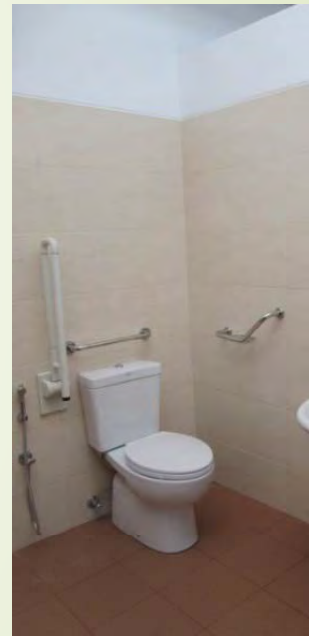
BETTER AND SAFER ROAD SYSTEM



TOWN HALL SQUARE AND VIHARAMAHA DEVI PARK



PUBLIC CONVENIENCE FACILITIES



SAFER CITY AT NIGHT



PRESERVING CULTURAL HERITAGE



The Arcade – Independent Square



FACTORS IMPORTANT FOR SUSTAINABILITY

Effective Maintenance of Infrastructure

- Sufficient Budgetary Allocation
 - Human Resources
-
- Planned/ Systematic Development
 - Public Private Partnerships
 - Implement Best Practices



THANK YOU





**MUNICIPAL COUNCIL OF
SEBERANG PERAI**
PENANG, MALAYSIA

THE 4th ASIA SMART CITY CONFERENCE

INDICES TO FACILITATE SUSTAINABLE URBAN DEVELOPMENT

20th October 2015 (Tuesday),
Inter Continental Yokohama Grand
Yokohama, Japan



Presented by :

YBhg. Dato' Maimunah

Mohd Sharif

President of MPSP

SEBERANG PERAI

LANDUSE ZONING



POPULATIONS

897,600

RESIDENT

based on Malaysian
Population Statistic 2014



SIZE

738

KILOMETER²



POPULATION GROWTH

1.7%

PER YEAR



BUILD-UP AREA

48%



WATER BODY

4%



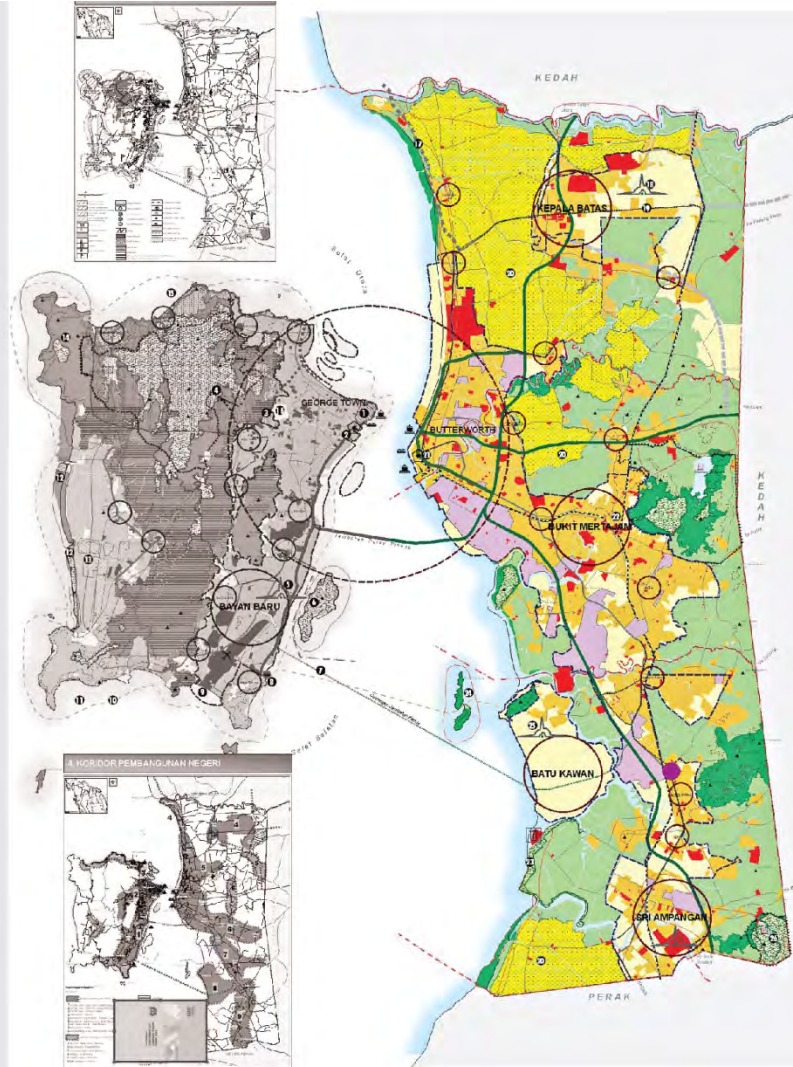
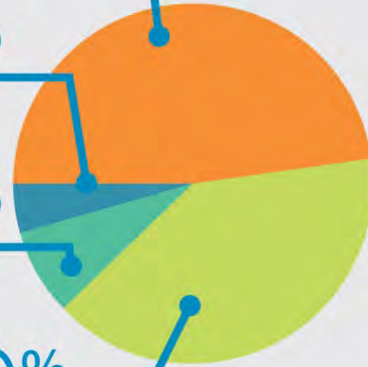
FOREST

8%



AGRICULTURE

40%



EVALUATION SCHEMES FOR SUSTAINABLE DEVELOPMENT



GOOD GOVERNANCE

- Effective delivery system (resident satisfaction levels, community engagement)
- Strengthening institution (council's revenue & expenditure)
- Enforcement and monitoring (physical environment comply to development plans and law enforcement)



SUSTAINABLE COMMUNITY

- Affordable Housing
- Accessible community facilities
- Quality of life (public complaints, grading food premise and public toilet, happiness index)
- Safety (crime index)
- Demography (dependency ratio)



EFFICIENT TRANSPORTATION & INFRASTRUCTURE

- Efficiency utility (Electricity and water consumption)
- Solid waste management (recycling rate, solid waste collection)
- Intergrated public transportation hub
- Sewerage management (centralized sewerage system)



SUSTAINABLE ENVIRONMENTAL QUALITY

- Environmental quality (water, air)
- Risk management (flood control plan)
- Environmental management (waste management, LA programs)



OPTIMAL USE OF LAND & NATURAL RESOURCES

- Built-up area charge rate
- Urbanization rate
- Heritage conservation and tourism



COMPETITIVE ECONOMY

- Employment rate
- Urban poverty rate
- Private Investment

GOOD GOVERNANCE

- Competency
- Accountability
- Transparency



ENVIRONMENTAL AWARENESS

- Solid waste management
- Water waste management
- Air quality management
- Green areas



SOCIAL ENRICHMENT

- Health
- Safety & security
- Social intergration & cohesion



INTELLECTUAL & INNOVATION

- Education
- Small & medium enterprises
- Human development



COMMUNITY ENGAGEMENT

- Citizen consultation & participation
- Government outreach



CULTURE & LEISURE

- Tourism
- Leisure venue management
- Cultural venue management



INFRASTRUCTURE ENHANCEMENT

- Urban planning
- Conventional & renewable energy
- Smart grids
- Transportation & water
- Building / housing & lighting



INFORMATION & COMMUNICATION TECHNOLOGY

- eGovernment
- Data centers
- Broadband & wireless
- E-Payment
- Digital Economy



MPSP Success Stories



INFORMATIVE TECHNOLOGY

- MPSP Watch
- Smart Monitoring System
- Big Data Analytic
- GiS Map Browser
- Citizen Action Technology (CAT) / Better Penang Apps
[@www.betterpg.com](http://www.betterpg.com)



PHYSICAL PLANNING & DEVELOPMENT

- Batu Kawan Eco-City
- Butterworth Rejuvenating Plan
- Bukit Mertajam Revitalization Plan



CREATIVE & INNOVATIONS

- Intergrated Mobile Office
- Musical Compactor
- Efficient Solution Trap
- Sliding Door Street Lighting



SMART GOVERNANCE

- Focus 2015
- In-House System
- Blank Sheet Strategy
- CAT - Competency, Accountability & Transparency



COMMUNITY ENGAGEMENT

- GRPB
- Local Action 21
- Cleaner, Greener, Safer and Healthier Campaign
- CSR Projects
- MPSP Car Free Morning
- 4R - Rethink, Reduce, Reuse Recycle,





EcoCity

BATU KAWAN

“Apart from physically greening Batu Kawan, it is also important to look at introducing sustainable green and eco-friendly practices in the area.

“We hope Batu Kawan can become a model for other townships to eventually adopt an Eco-town concept that promotes a healthy living environment,”

- Chief Minister Lim Guan Eng



Neighbourhood
Concept



Zero
Renovation



Safe City



Affordable
Homes



Accessibility



Solid Waste
Management



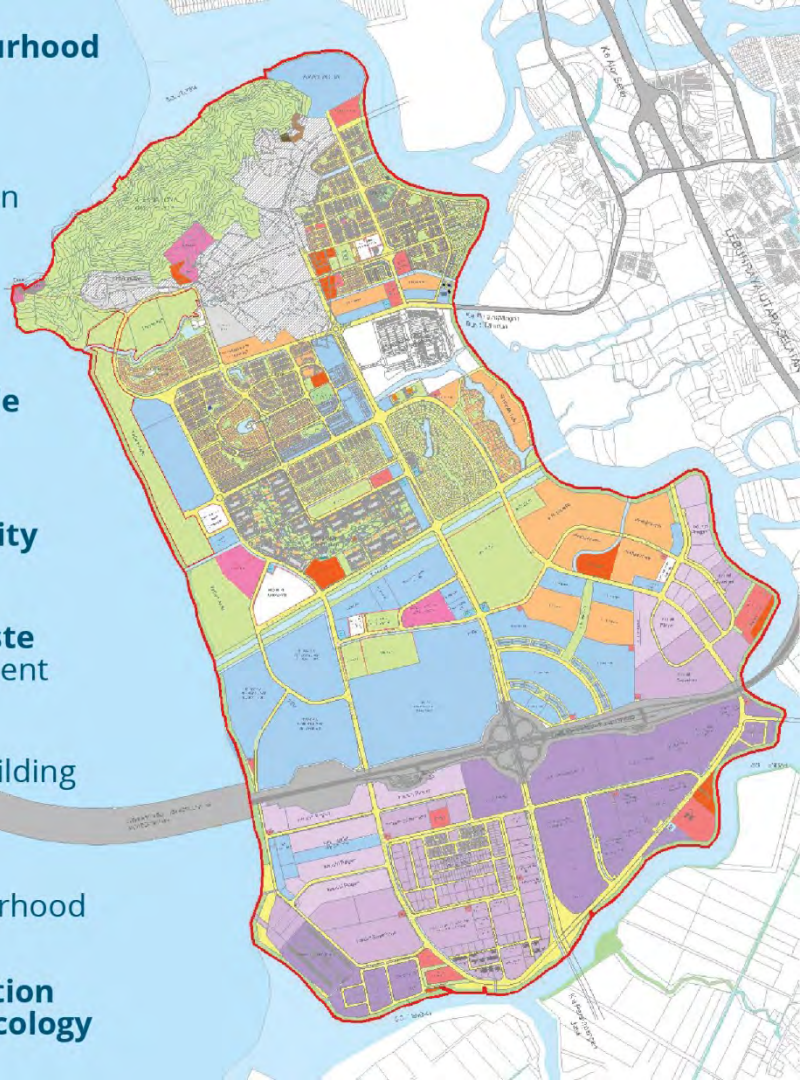
Green Building



Green
Neighbourhood



Preservation
Existing **Ecology**



CONCLUSION

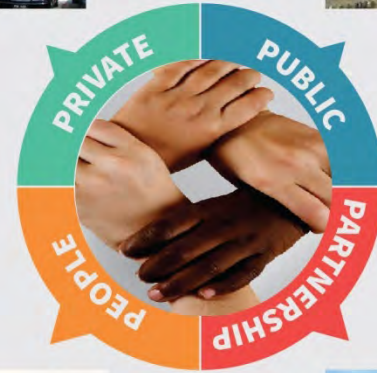
SUSTAINABLE DEVELOPMENT GOALS

GOAL 11 :

“MAKE CITIES AND HUMAN SETTLEMENT INCLUSIVE, SAFE, RESILIENT AND SUSTAINABLE”



4P's






THANK YOU



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WCCD

ISO 37120 AND THE WORLD COUNCIL ON CITY DATA: LESSONS LEARNED FROM MAKATI

CITYNET

**The 4th Asia Smart Cities Conference in Yokohama
October 20, 2015**

**Atty. Violeta Somera-Seva
Senior Advisor Makati City, Philippines**

The WCCD and ISO 37120: Created by Cities, for Cities



What is WCCD?

- Launched May 15, 2014 to coordinate open-source city data for standardized urban metrics
- Platform for global hub, creative learning partnerships across cities
- Build better, smart, resilient, sustainable, prosperous, and livable cities

WHAT IS ISO 37120?

- New series of international standards for sustainable development to measure the performance of city services and quality of life

**THE FIRST ISO
CERTIFIED OPEN
CITY DATA**



WCCD

**WORLD COUNCIL
ON CITY DATA**



ISO 37120 - 100 INDICATORS ACROSS 17 THEMES



Economy



Governance



Telecommunications



Education



Health



Transportation



Energy



Recreation



Urban
Planning



Environment



Safety



Wastewater



Finance



Shelter



Water &
Sanitation



Fire & Emergency
Response



Solid Waste

WCCD Certification Levels

WCCD Certification levels are based on the number of indicators reported by the city. WCCD offers a wide range of certification levels.

ISO 37120



WORLD COUNCIL
ON CITY DATA

Aspirational

30-45

Core Indicators

ISO 37120



WORLD COUNCIL
ON CITY DATA

Bronze

46-59

Indicators

(46 Core + 0-13

Supporting)

ISO 37120



WORLD COUNCIL
ON CITY DATA

Silver

60-75

Indicators

(46 Core + 14-

29

Supporting)

ISO 37120



WORLD COUNCIL
ON CITY DATA

Gold

76-90

Indicators

(46 Core + 30-

44

Supporting)

ISO 37120



WORLD COUNCIL
ON CITY DATA

Platinum

91-100

Indicators

(46 Core + 45-

54

Supporting)

How can I join the WCCD and become an ISO 37120 city?

Please visit our website www.dataforcities.org and fill out an Expression of Interest form.



WCCD

**WORLD COUNCIL
ON CITY DATA**

Importance of Globally Standardized Indicators

Cities need a global set of globally standardized indicators to:



MANAGE

and make informed decisions
through data analysis



BENCHMARK

and target



LEVERAGE FUNDING

with senior levels of
government



PLAN

and establish new
frameworks for sustainable
urban development



EVALUATE

the impact of infrastructure
projects on the overall
performance of a city

Standardized indicators enable cities to assess their performance, measure progress over time, and also draw comparative lessons from other cities locally and globally



WCCD

**WORLD COUNCIL
ON CITY DATA**

Makati awarded PLATINUM CERTIFICATION in 2014

LESSONS LEARNED

- Regular updating of indicators is essential for planning and performance monitoring
- Upgrading of its centralized data management system
- Strengthening partnerships and communication with external organizations/agencies to obtain city level data.
- Benchmarking and knowledge exchange with other cities is advantageous
- Continue to be an active member of WCCD, helping to further develop and promote ISO 37120 in more cities, all of them working together to create sustainable and vibrant communities



WCCD

**WORLD COUNCIL
ON CITY DATA**

CONTACTS



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Diagnosis

- Identify;
 - Current status
 - Challenges
 - Ways in which cities could pursue towards realizing sustainability transition



IGES Service Process on Cities Achieving Sustainability Transition

Needs & Seeds Matchmaking

- Workshops
- Capacity Building



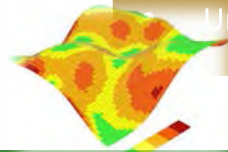
Low Carbon Navigator

- Energy mix for 2050
- Linkage with future society, energy and associated GHG emissions



Spatial analysis

- Land scape approach
- Local level vulnerability index
- Urban planning



Blueprint

- Sustainability Planning
- Institutional Arrangement
- Practical Knowledge

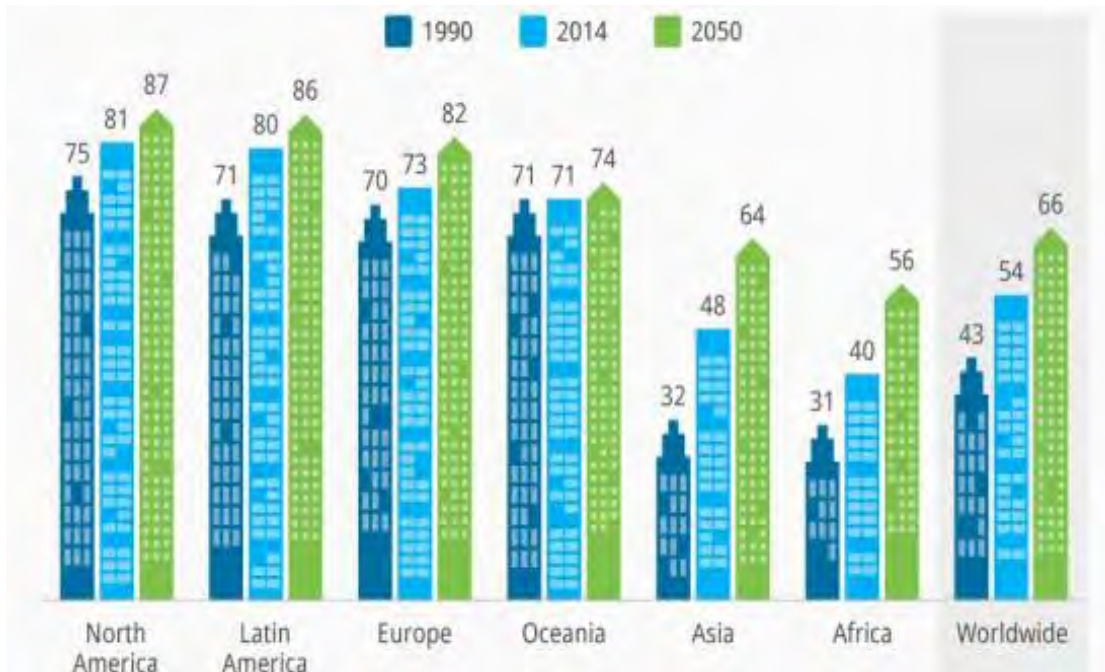


Urbanization as a Global Challenge

- Currently 54% of the world population lives in urban areas, and the percentage is expected to reach 66% in 2050. Urbanization is a trend that is found all over the world. Particularly in emerging countries in Asia and other regions, coupled with economic growth, urbanization is causing urban problems to surface in various areas such as the environment, public health, disparity, and safety.
- Japan has developed the ability to solve urban problems in the past as it experienced and overcame them. The key to ensuring both Japan's and the world's growth is to apply that ability to overseas countries.

Changes in the Percentage of Urban Population in the World (Forecast)

Fifty-four percent of the world population lives in urban areas, and the percentage is expected to reach 66% in 2050.



(Source) This figure has been created by Mashable based on the U.N. World Urbanization Prospects 2014 Revision.

Ranking of City Populations in 2025

All cities listed below are located in emerging economies except Tokyo and New York. In particular, six Asian cities (seven if Tokyo is included) are included in the ranking.

Rank	City area	Forecast for 2025 (1,000 persons)
1	Tokyo	36,400
2	Mumbai	26,385
3	Delhi	22,498
4	Dacca	22,015
5	São Paulo	21,428
6	Mexico City	21,009
7	New York	20,628
8	Calcutta	20,560
9	Shanghai	19,412
10	Karachi	19,095

(Source) UN-Habitat

Urbanization as a Global Challenge

- Urban problems cover a wide range of areas and are related to one another. It is also necessary to take long-term measures to solve them. Therefore, it is essential to grapple with them after, in the early stage of planning, clarifying concepts of the social problems involved.
- Early signs of Japan tackling the world's urban problems starting from the early stage of planning have gradually been seen in recent years.

Examples of Involvement Starting from the Early Stage of Planning

Ukrainian national energy master plan (from 2014)

Helping formulate a master plan for energy policy as Ukraine works to improve energy security

Yokohama-Cebu advisory memorandum of understanding on city planning (from 2012)

Giving technical advice, including master planning to realize an environmentally friendly, sustainable city

Yokohama-Da Nang advisory memorandum of understanding on city planning (from 2013)

Supporting infrastructure development (such as waste disposal and water environments) as the population grows due to the progress of urbanization

Pacific union infrastructure master plan (from 2011)

Formulating an infrastructure master plan to contribute to elimination of logistic bottlenecks in the Pacific union and strengthening the supply chains of the region

Project to develop a new state capital in the Indian state of Andhra Pradesh (from 2014)

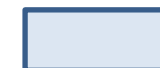
Submitting the master plan developed by Japanese businesses as Andhra Pradesh, which was spun off and became an independent state, needs to build its new capital

Japanese-French cooperation in sustainable city development in Africa (from 2015)

Considering development of action plans and project lists to advance sustainable city development in Africa through cooperation between Japan and France

Kitakyushu-Surabaya memorandum of understanding on environmental sister-city agreement (from 2012)

Implementing projects such as waste disposal, recycling, co-generation, energy conservation, sewage treatment facility development planning, and drinking water supply



Initiatives led by the national government



Initiatives led by local governments

Example of Involvement from the Early Stage of Planning: Construction of a New State Capital in the State of Andhra Pradesh in India

- Last November, at the request of Chief Minister Naidu of Andhra Pradesh, Japan agreed to engage in urban development from the early stage of planning because its high-level urban infrastructure technology was favorably evaluated.
- Japan has worked with the state of Andhra Pradesh (AP) to set up a AP-JPN joint task force to promote investments in AP and has started these important projects.

Major events in the past

November 2014	Minister Miyazawa and AP's Chief Minister Naidu signed a Memorandum of Cooperation, including development of a new state capital.
January 2015	State Minister Takagi, AP's Chief Minister Naidu, and Singapore's Second Minister Iswaran of Trade and Industry agreed that AP, Japan, and Singapore would work together to develop a new state capital.
February 2015	The Japanese side held a meeting of the cross-sectional task force to promote investments in AP .
April 2015	Minister Miyazawa submitted Japan's proposals for development of the new state capital to AP's Chief Minister Naidu.

Site of the new state capital



Establishing Platforms to Attract the Vitality of the World (Indicator Development)

○For solving city challenges, benchmark from the viewpoint of users/citizens is needed.

○Existing rankings of cities

- The rank of cities varies because different indicators are used according to the objectives of rankings.

Company	Ranking name	Industry	Top three cities	Rating of Tokyo
A.T. Kearny	Global Cities Index	Consulting (U.S.)	New York, London, Paris	4th
PwC	Cities of Opportunity	Consulting (U.S.)	<Infrastructure and convenience>	11th
			Singapore, Toronto, Buenos Aires	10th
			<Intellectual property and innovation>	11th
			Paris, London, San Francisco	
			<Health, safety, crime prevention>	
			Stockholm, Toronto, San Francisco, Sydney	
Mercer	Quality of Living Survey	Consulting (U.S.)	Zurich, Geneva, Vancouver	35th
Forbes	The World's Most Influential Cities	Magazine (U.S.)	London, New York, Paris	5th
GaWC	The World According to GaWC	Consulting (U.K.)	α++ London, New York	α+
			α+ Hong Kong, Paris, Singapore, Shanghai, Tokyo, Beijing, Sydney, Dubai	
Night Frank	The Wealth Report's Global Cities Survey	Real estate (U.K.)	New York, London, Paris	4th
The Economist	Global Liveability Ranking and Report	Magazine (U.K.)	Melbourne, Vienna, Vancouver	18th
MONOCLE	World's Most livable Cities	Magazine (U.K.)	Copenhagen, Tokyo, Melbourne	2nd
Mori Memorial Foundation	World city ranking	Consulting (Japan)	London, New York, Paris	4th

○Indicator from the viewpoint of city challenges (Example):

<Security and safety>

- Public order and well-mannered drivers

<Environment and public health>

- Water supply and sewerage, garbage treatment facilities, and exhaust gas standards

<Predictability and accuracy of time>



- Waiting time when using facilities, punctual operation of public transport, time designation for home parcel delivery service

<Equality>

- Living standards supported by social infrastructures and administrative services
- Higher education

Supported Model Cities Year 1 & 2

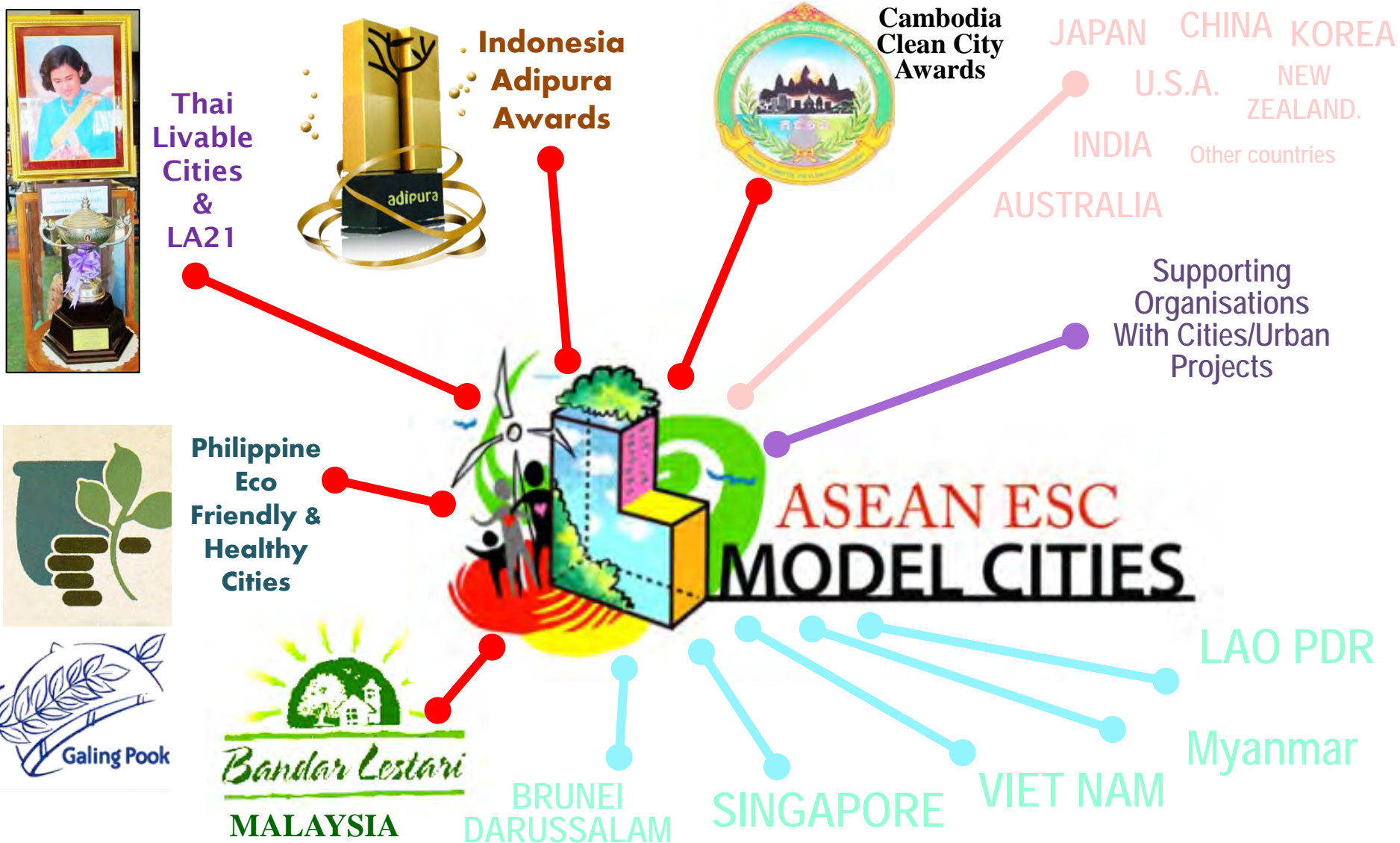
Total: 31 cities

Country	Model Cities Year 1	14 15,000 persons reached	Model Cities Year 2	21 (+17 new) 55,000 persons reached
Cambodia	Phnom Penh, Siem Reap		Phnom Penh, Pursat	
Indonesia	Palembang, Surabaya		Balikpapan, Lamongan, Malang, Tangerang	
Lao PDR	Xamneua		Luang Prabang, <u>Xamneua</u>	
Malaysia	North Kuching		--	
Myanmar	Yangon		<u>Yangon</u> , Mandalay, Pyin Oo Lwin	
Philippines	Palo, Leyte; Puerto Princesa		Legaspi; San Carlos, Negros Occidental; Santiago	
Thailand	Mae Hong Son, Muangklang, Phitsanulok		Chiang Rai, Nongteng, Panusnikon, Pichit, Renunakon	
Viet Nam	Cao Lanh, Da Nang		Dalat, <u>Da Nang</u>	

Indicates Model Cities which have initiated notable good practices targeted at mitigation and expressed strong motivation to be a 'low-carbon city'

Linking with Existing National Programmes and Assisting Development of New Ones

National ESC Awards/Networks as 'Building Blocks' to ASEAN ESC Model Cities



CHIANG RAI



Public ESC Learning Centres on 'Eco-culture', 'Organic Farming', 'Biodiversity' and 'Resiliency' linked to Green Tourism

Selected Activities of Model Cities



Training of grassroots environmental 'cadres' on waste bank and community-based sanitation

Making flower pots from cement and waste foam



NONGTENG

PHICHIT



MALANG



Solar-powered community water supply



School educational kits

MANDALAY



Plastic Bag Reduction Campaign (Including Local Ordinance & Weekend Ban)

PHNOM PENH

Review of Year 2 and Direction of Year 3

Agreed Common Framework of 'Model Cities'

Evaluation of environmental performances by indicators by linking to city-related SDGs

QUALITIES

ACTIONS

All Model Cities are able to implement, regardless of city size and profile.

City Departments
Citywide
Nationally
Globally

1 ASPIRATION

Visions are unique. Goals either **meet** or **exceed** expectations. **Resources are allocated** to meet goals

1 ENVIRONMENTAL EDUCATION

Teach environmental issues and sustainability in schools/institutes of learning and also involve the general public

3 NETWORKING

Government, citizens, businesses, academic, artists know each other and work together to overcome challenges. Specific committee tasked with oversight.

2 INNOVATION

ESC Practices/policies in the 'Model Cities' have some aspect of **novelty/creativity'**

2 INNOVATE & EXPERIMENT

'Islands of Excellence' within the city: Model Homes/Villages, Model School/University, Model Green Private/Public Building, Model Public Spaces (Park, Museum, Library etc.)

4 COMMUNICATIONS

Effective and beautiful PR services and systems for citizens and non-citizens (tourists, international organisations etc.)



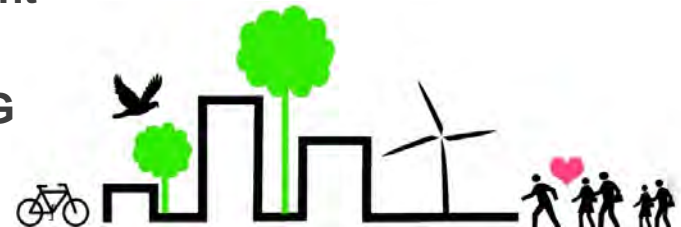
3 CONTRIBUTION

'Model Cities' reflect **their contribution** to addressing **national, regional and global issues** into **local actions**.

1 **Quality Living Environment for Wellbeing** For citizens

2 **IMPRESSIVE & INSPIRING** To other cities, visitors, Tourists etc.

RESULTS



To be evaluated by indicators!

Sharing the Findings in the Region for Collaboration



6th HIGH LEVEL SEMINAR on ENVIRONMENTALLY SUSTAINABLE CITIES

February 9-10, 2015 ♦ Johor Bahru, Malaysia



Organisers: Governments of
Malaysia, Japan, and
Cambodia, ASEAN Secretariat
and AWGESC

250 participants from:
12 national governments
36 Local governments
26 NGOs, Development Agencies,
Academia and Private Sector

Held Back to Back with the
International Forum on
“FutureCity” Initiative in Malaysia:
Building the sustainable city and
the “FutureCity”

indices to measure competitiveness of a smart city

smart infrastructure

physical,
social,
Institutional
economic

ensuring centrality of citizens in
a sustainable environment

smart cities a process rather
than as a static outcome

indices to measure competitiveness of a smart city

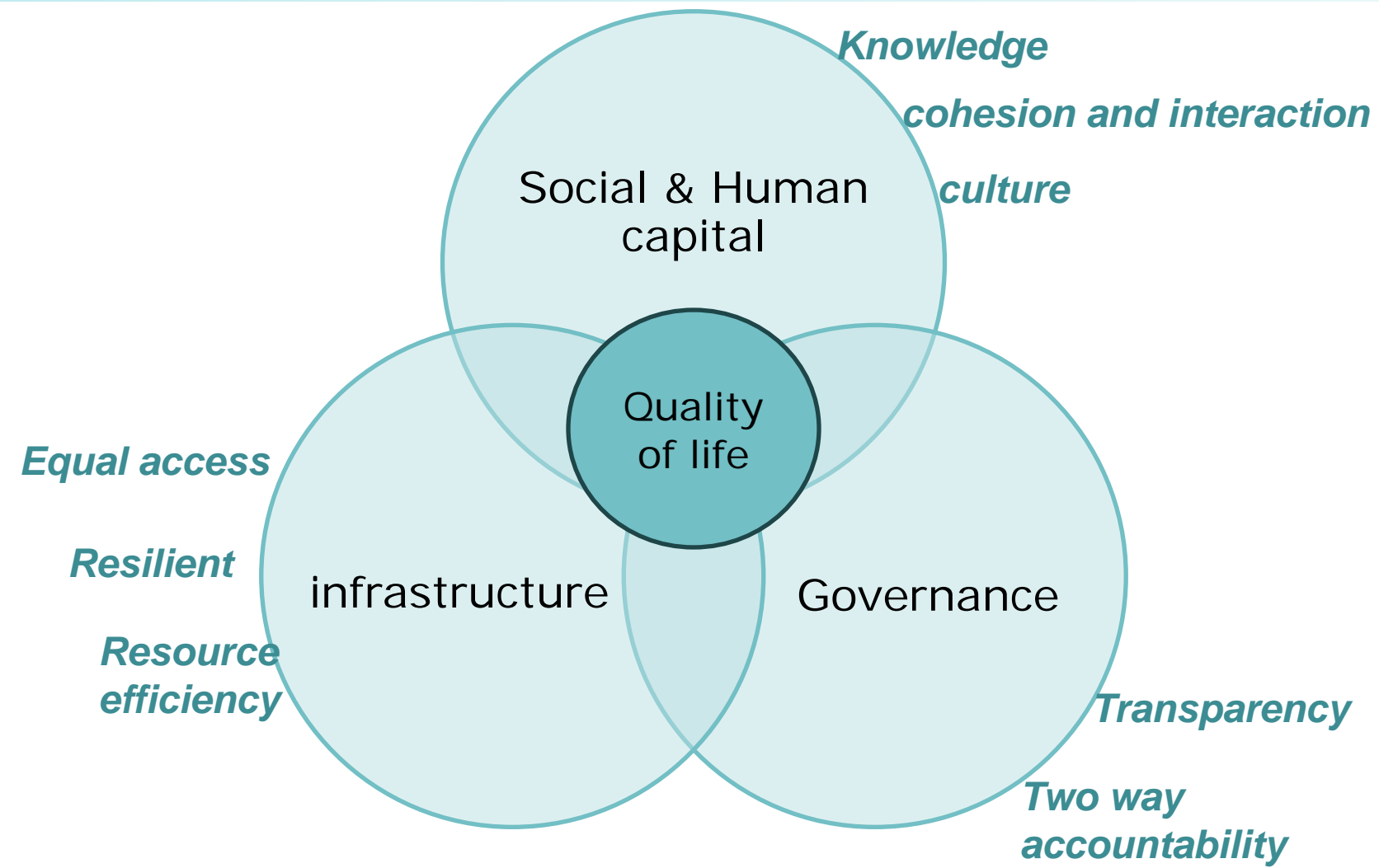
From functioning mechanisms to productivity based

cost of living,
employment,
crime,
health,
environment,
transportation,
education,
arts,
climate

Economic performance,
government efficiency,
business efficiency
and infrastructure

GDP,
labor productivity,
rate of employment,
economic growth,
number of business
enterprises

indices to measure competitiveness of a smart city



indices to measure competitiveness of a smart city

Determinants of quality of life

- Material wellbeing and affordability
- Health and safety
- Political stability
- Family life
- Community life
- Climate and resilient
- Job security and opportunities
- Political Freedom
- House and basic services .
- Inclusive society

The 4th Asia Smart City Conference
20 October 2015, Yokohama

Indices to Facilitate Sustainable Urban Development

**- Resource Efficiency, Good Governance
and Inclusive Policies and Plans -**

Hidefumi IMURA

Professor

Global Cooperation Institute for Sustainable Cities

Yokohama City University

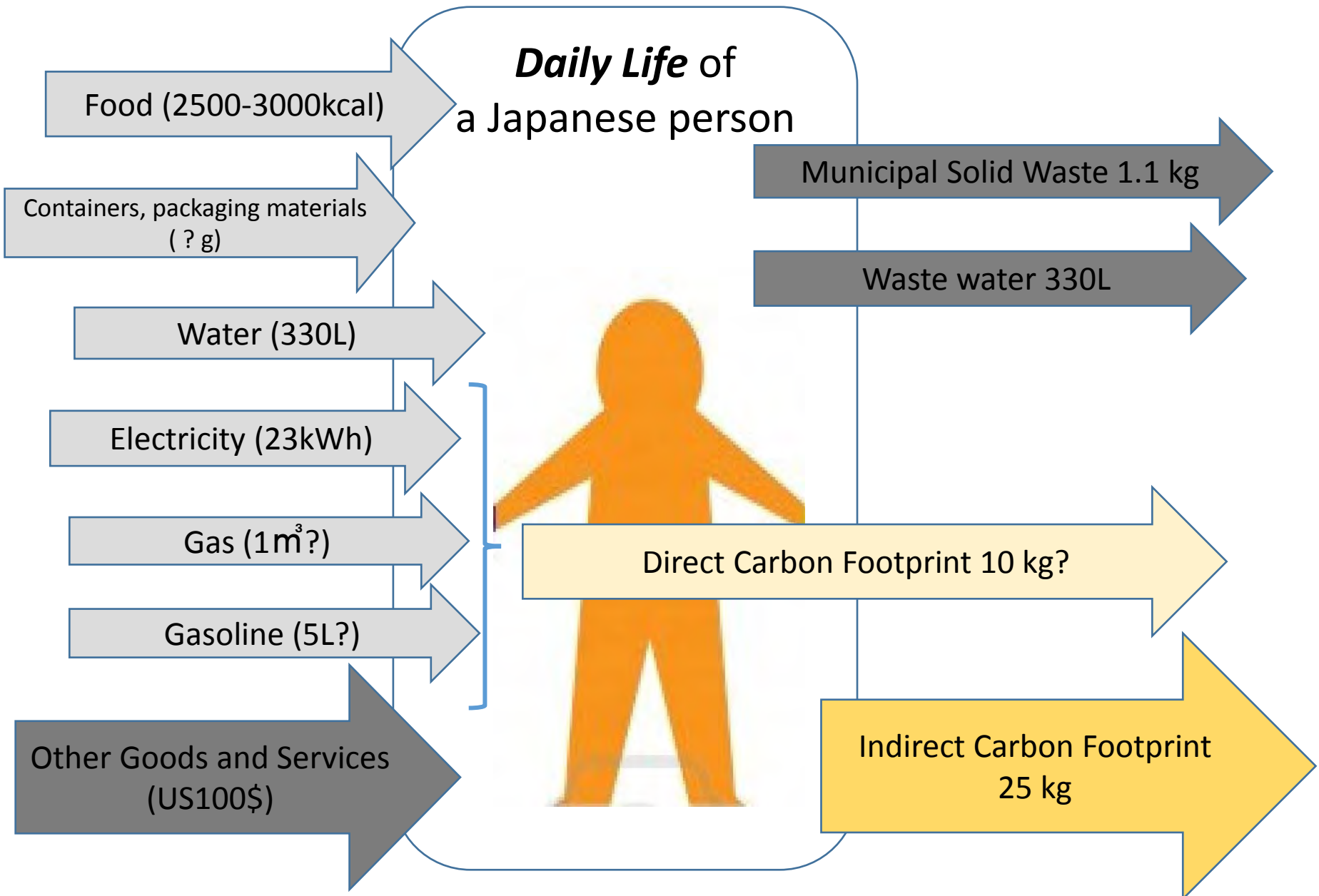
SGD 11 Make Cities and Human Settlements Inclusive, Safe, Resilient and Sustainable

TARGETS

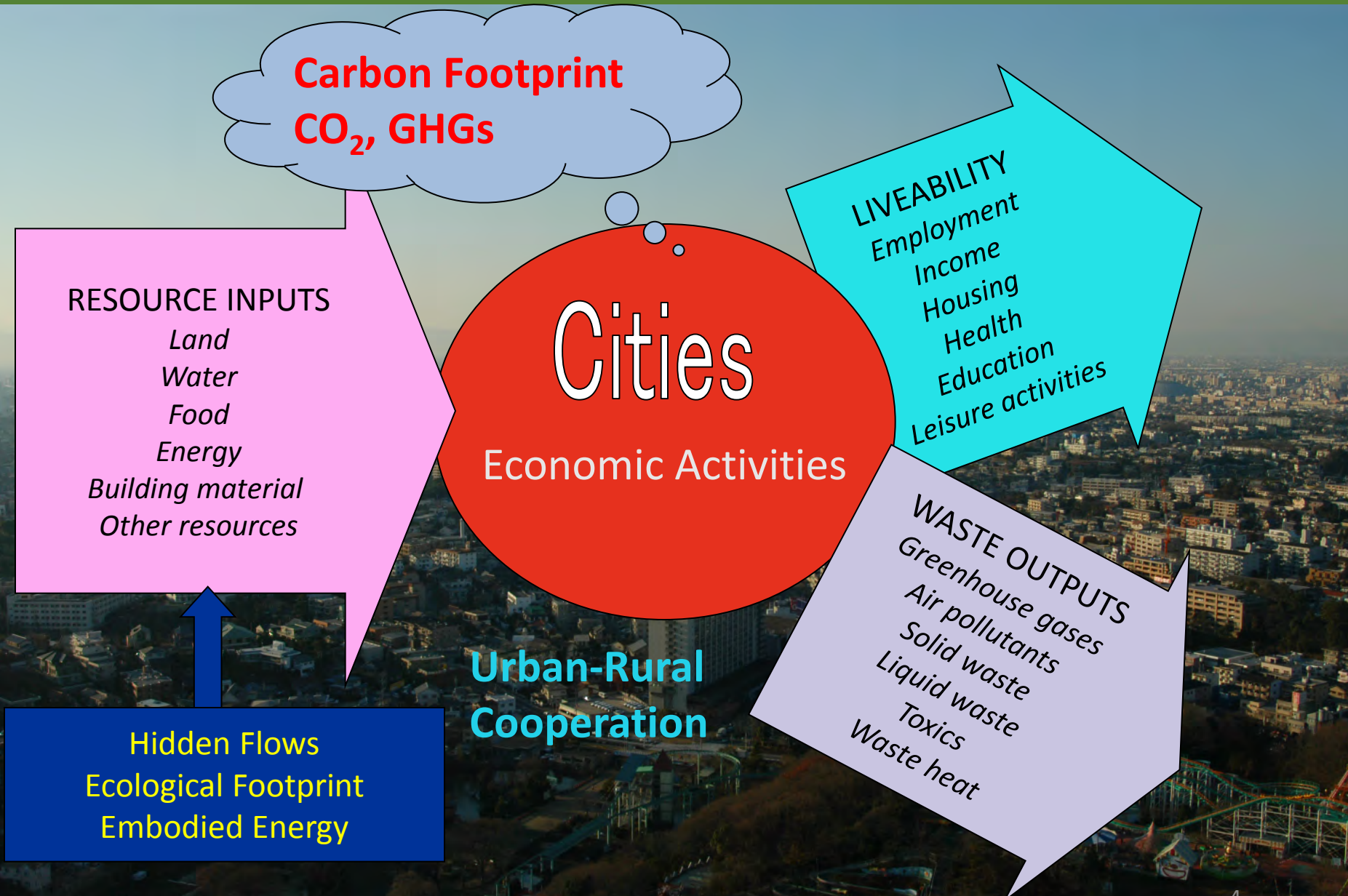
Indices for Evaluation and Facilitation

- 11.1** By 2030, ensure access for all to **adequate, safe and affordable housing and basic services** and upgrade slums
- 11.2** By 2030, provide access to **safe, affordable, accessible and sustainable transport systems** for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons
- 11.3** By 2030, enhance inclusive and sustainable urbanization and capacity for **participatory, integrated and sustainable human settlement planning and management** in all countries
- 11.4** Strengthen efforts to protect and safeguard the world's **cultural and natural heritage**
- 11.5** By 2030, significantly reduce the number of deaths and the number of people affected and substantially decrease the direct economic losses relative to global gross domestic product caused by **disasters**, including **water-related disasters**, with a focus on protecting the poor and people in vulnerable situations
- 11.6** By 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to **air quality and municipal and other waste management**
- 11.7** By 2030, provide universal access to **safe, inclusive and accessible, green and public spaces**, in particular for women and children, older persons and persons with disabilities
- 11.a** Support positive economic, social and environmental links between urban, per-urban and rural areas by strengthening **national and regional development planning**
- 11.b** By 2020, substantially increase the number of cities and human settlements adopting and implementing **integrated policies and plans** towards inclusion, **resource efficiency**, mitigation and adaptation to **climate change**, **resilience to disasters**, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, **holistic disaster risk management** at all levels
- 11.c** Support least developed countries, including through **financial and technical assistance**, in building **sustainable and resilient buildings utilizing local materials**

Indices for *Resources Efficiency*



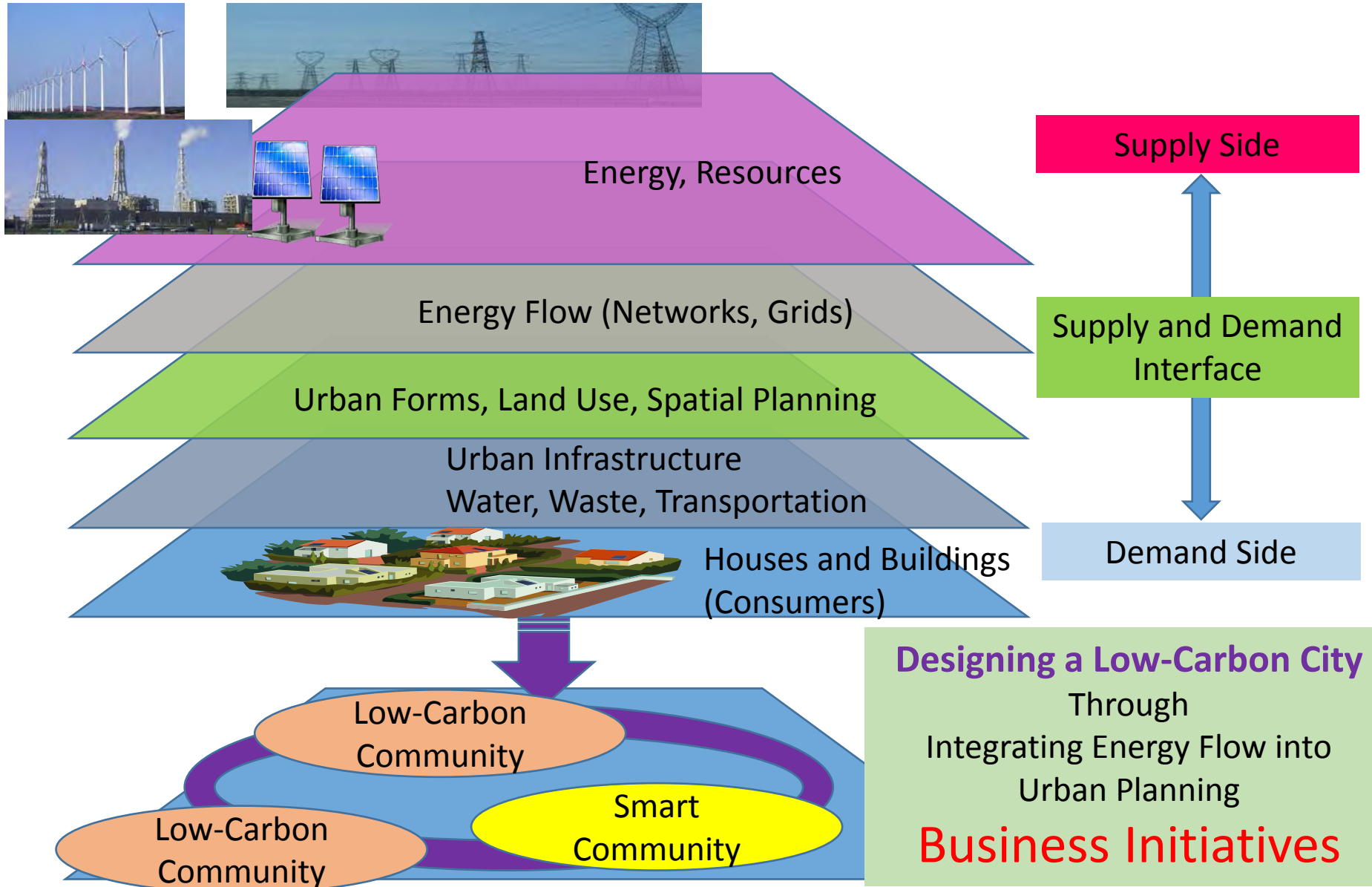
The City as an Ecosystem: Resource Efficiency



After Peter Newman & Jefferey Kenworthy

Integrated Policies and Plans

- Integrating Flows into Urban Planning -



Good Governance Indices for a Smart City

- Inclusiveness of Policies and Plans -

Sectoral Policies, Plans and Projects

- Housing
- Transportation
- Energy
- Drinking Water
- Waste Water
- Solid Waste
- Air
- Disaster Management

Integrated Policies, Plans and Projects

- Leadership of Mayors
- Coordination Mechanisms of Vertical and Horizontal Organizations
- Capacity Building of Officials
- Participation of All Stakeholders
- Communication / Information Sharing
- Public Education
- Good Knowledge Base
- Collaboration of Administration, Business and Academia

Indices for Assessing Inclusiveness
Check Lists, Qualitative Approach

IMPROVING EVALUATION SCHEMES FOR SUSTAINABLE URBAN DEVELOPMENT: From Traditional Input-, Sector- and Economy- (ISE) Oriented to Strategic Outcome-, Process- and Holistic- (OPH) Oriented Approach

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4th Asia Smart City Conference
At InterContinental Yokohama Grand Hotel
20 October, 2015

1. TAPES: Urban Governance Cores for EC-Vibrant and ES-Sustainable Municipality : Case of Musashino

First drafted in 1973 and later adjusted to ever changing conditions in the city and outside under globalization, Musashino citizens have been keen to see how far **the Basic Principles of Community Governance (Magna Carta)** enunciated in 1976 are translated into action and achieved in terms of the **TAP4E4S** consisting of:
Transparency, **A**ccountability, **P**olicy priorities (Long-term Visions) ,
Planning, **P**articipation, **P**artnerships, **E**mpowerment, **E**quity,
Efficiency and **E**ffectiveness for **Economic, Social, Environmental
and Cultural Sustainability** of Musashino Municipality.

2. Strategic OPH-Oriented Approach requires, unlike Traditional ISE-Oriented, to meet the Citizen's Demand for Transparency and Accountability across all Municipal Activities.

1) Unlike Traditional Approach's Indices for the physical landscapes of Municipality, **New Approach** had to show the **Municipal Output/Outcomes of policies in a holistic manner**, in terms of GDP growth, population mobility, industrial and employment restructuring, higher quality of health and education, youth and gender equity, pleasure of diversity, fiscal balance, fire and disaster resilience, etc.;

2) **Greatest hurdles** to the New Approach were : **a) Political** such as i) stakeholder representation, ii) citizen cooperation, iii) reorientation of the mindset of municipality staff, iv) negotiation with central government ministries, **and b) Technical in nature**, such as i) criteria selection, ii) data collection, iii) training of municipal staff, to reflect social value changes;

3) **Transparency indices** showing **the extent of disclosure of all municipal government information**, such as a) access by citizens to information disclosure desk, b) municipal newsletters reporting on the municipal development, c) citizen requests for municipal administration documentation, and d) access to the municipal website by type of information;

4) **Accountability indices** showing **the extent of: a) legislative and administrative responses to citizen's grievances, b) public hearings, c) quick services, and d) questionnaire and surveys on citizen's immediate and longer-term needs** for and satisfaction with urban improvement in socio-economic infrastructures and governance;

3. Public Participation in the Municipal Decision-Making Processes and Partnerships of all Relevant Stakeholders for Plan Implementation are equally essential.

5) **Planning and Implementation processes:**

a) **NGOs and citizen's groups** in the city actively engaged in improving various dimensions of municipal governance, b) Municipality- and/or NGO-organized meetings involving citizens for planning and implementing its longer-range and annual development policies, plans and programmes, c) **Meetings where mayor and municipal assemblymen have dialogue with relevant stakeholders** in and outside municipal assembly, d) Municipal assembly committee meetings organized for reviewing draft plans presented by mayor and his associates, and e) **Public comments on draft municipal development policies, plans, programmes and projects;**

6) **Monitoring and Evaluation processes:**

a) **Internal and external evaluation committee meetings** for reviewing the municipal policy performance and evaluation processes, b) **Qualified professional evaluators** sitting on evaluation committees, c) **Community and NGO representatives** sitting on external evaluation committees, d) NGOs, citizen's groups, business corporations and other stakeholder groups in the municipality submitting applications for contract-out activities of municipal government and their success ratios, and e) **Public comments on draft internal and external evaluation Reports for possible reorientation of municipal policies;**

4. Stakeholder Empowerment and Equity are not only the Objectives of TAPES, but also the Criteria by which to measure Competitiveness of the Municipality.

7) **Equitable access to high-quality public services** in education, health, sanitation, safety, environment, convenience and other major concerns of stakeholders:

a) **Tertiary school enrollment ratio**, b) Community college enrollment, c) Employment and social participation of the physically and mentally handicapped, d) Accessibility to medical and health service staff and facilities, e) Pre-school children health services, **f) Enrollment in public and private nurseries for working parents and single mothers/fathers**, g) School children requiring community care, h) **Senior citizens participating in education, sports and recreational programmes**, i) Persons under old-age care programmes at home, j) **Participants in community centers for citizen dialogues**, k) Youth participating in cross-cultural programmes including study tours overseas, and l) **Movus, Reverse mortgage, Silver resources centers, and Lemoncap taxis services**;

8. **Equitable sharing of the cost** of the public services rendered by all taxpayers:

a) Public education, health and hygiene services, b) **Ten Million Homes for assistance to expecting and post-natal mothers**, c) **Children Green Homes** for preschool and school children requiring community care, d) **Senior citizen centers and other old age care services** including day and short stay services, e) Family assistance for low-income households, f) **Himawari Homes** and other services for the socially disadvantaged persons, g) Public housing subsidies, h) Public subsidies for sports, art and cultural activities, i) Fire and disaster relief and prevention programmes, j) Citizen safety and security programmes, k) Environmental conservation and protection programmes, l) **MIA and other subsidies for NGOs and civil society activities**, and m) Municipal administration expenditures;

5. Results-based Management under TAPES requires the Municipality also to maximize Efficiency and Effectiveness for achieving Sustainability.

9) Efficiency, Effectiveness, and Economic and Social sustainability

a) **Municipal employees per 1,000 residents**, b) Average monthly salaries for municipal employees, by level of supervision, c) Total wage bill as% of municipal recurrent budgetary expenditures, d) **Fiscal balance**, e) Fiscal deficits outstanding, f) Tax revenue as % of the total revenue, by kind, g) Metropolitan and national revenue sharing as % of the total municipal revenue, h) Public investment expenditure as % of the total municipal expenditures, by sector, i) **Local procurement as % of the total, by sector**, j) Middle-income taxpayers as % of the total tax paid, k) **Gini coefficients**, l) Corporate productivity, by sector and by size of enterprise, m) Daily incoming and outgoing population by purpose, n) Social crimes indicted as % of the total population, o) **Rates of municipal quantitative targets achieved** as % of those in the relevant plan;

10) Environmental and cultural sustainability

a) **Park and greenery space per capita**, b) Sidewalk space, bicycle paths/parking space as % of the total road space, c) Daily commuters by public transport, bicycles and park & ride, e) Energy consumption, by sector and by type, f) HBVs, EVs and FCVs as % of the total number of automobiles registered, g) **Electricity and gas consumption by households per day**, h) Traffic accidents per 10,000 persons, i) **Total urban wastes collected by type and their treatment cost**, j) Recycled urban wastes as % of the total, by type, k) Solarized and LEDs-based households and public facilities as % of the total, l) **Rainwater conserved per capita**, m) Participants in fire and disaster prevention exercises, n) Annual visitors at sports centers, art galleries, museums, libraries and other cultural facilities, and o) **Participants in town festivals**;

THANKS FOR YOUR KIND
ATTENTION !

For further enquiries, please email to the
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