THAILAND BUSINESS DAY

GREEN CITIES - GREEN INDUSTRIES INITIATIVE

"Green Cities - Green Industries –
Thailand's Smart Cities Approach"

The Chairman
Thailand Forum Germany

Auswärtiges Amt Berlin - German Global Trade Forum Berlin
19.05.2015

Plan, Evaluierung, Strategie, Umsetzung

Thailands strategische Wirtschaftsentwicklungspolitik ist sowohl "smart" als auch "grün" und vor allem:
Sie folgt

- einem Plan bei dem den Städten die Hauptaufgaben der Umsetzung obliegen
- einem ganzheitlichen Ansatz im internationalen Kontext der Weltklimakonferenzen, dem offenen Dialog und der Zusammenarbeit mit Partnern aller Ebenen, in Gestalt einer PPP und auf Basis der nationalen Bedürfnisse, dh.

- international: UN, APEC, ASEAN, Asian Economic Community
- regional: ASEAN, interlokal ("cross border asean")
- an der Basis = in den Städten und ausgewählten Regionen

-vernetzt, projektbezogen und streng ergebnisorientiert ohne unzumutbare Abhängigkeiten zu begründen. D.h. konkret….

APEC
Asia-Pacific Economic Cooperation

Thailand Forum Germany (2003)

UN Klimakonferenzen

UN Climate Change Conference 2007
Bali - Indonesia

RIO+20
United Nations
Conference on
Sustainable
Development

Bonn Climate Change Conference - June 2015

The Challenge: Climate Protection not only

we all are rowing in the same boat

Asien Pazifik Wochen 2011 – 1.Green Cities – Green Industries Berlin Conference

Why smart & green ?

“Smart” und “green” berücksichtigt die realen Bedingungen und Herausforderungen aller Länder und stellt klar, dass Klima- und Umweltschutzfragen nicht allein durch “Technik” beantwortet werden können.

Die Sicherung der Daseinsvorsorge bei gleichzeitiger Förderung der Wirtschaft und ihrer Wettbewerbsfähigkeit mit den vorhandenen Ressourcen und deren Optimierung ist materielle Grundlage des Ansatzes, der nicht allein auf die Industrie, sondern die weiterhin wichtige Agrarbasis, Innovation, moderne Dienstleistungen, Logistik, und zB. Sicherheitfragen fokussiert.

Städte sind Auftraggeber, Dienstleister und Partner bei der Lösung ihrer eigenen Aufgaben wie auch der Förderung der lokalen Wirtschaft. Als Kooperationspartner (cross border) können sie wirtschaftliches Engagement flankieren, sichern und durchsetzen.

And finally: All business is local

Bangkok`s G l o b a l W a r m i n g A c t i o n P l a n 2007-2012

- Bali Climate Conference (2007) – Rio + 20 (2012) -

Bangkok plante u.a. die Verringerung des Energieverbrauchs bei der Air Con. Rd. 800 gigawatt Std./Jahr sollen eingespart werden.

Energy-Management-Systems/Contracts / LED Exchange

Projects waste-to-energy facilities/ Waste-to-gas-to energy

THAILAND

Key Policies and Plans to Promote Green Growth

The 11th National Economic and Social Development Plan (2012 – 2016):

Thailand's National Economic and Social Development Board formulates development strategies at the national and other levels. The current plan includes a Green Policy that calls for addressing climate change more rigorously and moving toward a low-carbon economy and society.

Thailand Climate Change Master Plan (2012–2050):

The Climate Change Master Plan is a framework of integrated policies and action plans relating to climate change. It supports climate change preparedness initiatives and aligns with the country's economic and socio-cultural contexts, and sufficiency economy philosophy. The plan includes three key strategies:

1. Mitigation of greenhouse gas (GHG) emissions and increase of GHG sinks to promote sustainable development
2. Strengthening the capacity of human resources and institutions and to manage the risks from the effects of climate change and cross cutting issues
3. Adaptation for coping with the negative effects of climate change

Sectoral Initiatives

Energy

- Targeting a 25 percent GHG energy intensity reduction by 2030, with alternative energy comprising 20 percent of total energy use
- Developing the 20-Year Energy Efficiency Development and the Alternative Energy Development Plan

Agriculture and Forestry

- Encouraging local authorities to enhance carbon sinks throug forestation and sustainable forest resource management
- Allocating national budget to establish an information center and satellite systems to track forest cover, land use, and land-use change

Waste

- Developing an incentive scheme to promote electricity generation from waste, including plans to build a plant in Bangkok

Sub-national

- Promoting the "Clean City Clean Mind" and "Low Carbon City" initiatives, providing technical assistance to local governments

Thai Low Carbon City – The Process

Feature Initiative: Thai Low Carbon City

"Low Carbon City" refers to a province, city, municipality, or community that pursues a systematic process to achieve GHG emission reductions. The Thailand Greenhouse Gas Management Organization has developed a nine-step process to involve stakeholders in working towards a Low Carbon City:

1. Survey key activities (economic and social) in the target city
2. Prepare GHG inventory for each key emitting sector
3. Identify emission reduction measures and technolo gies in each key emitting sector
4. Analyse and select emission reduction measures and technologies
5. Project (1) emissions under a BAU scenario and (2) emissions if GHG mitigation measures and/or technologies are adopted
6. Set GHG reduction targets at the city level
7. Create an action plan
8. Implement the action plan, and monitor progress and results
9. Review targets, direction, measures, and action plan

Pioneer Muangklang

Pioneer Low Carbon City: Muangklang Municipality

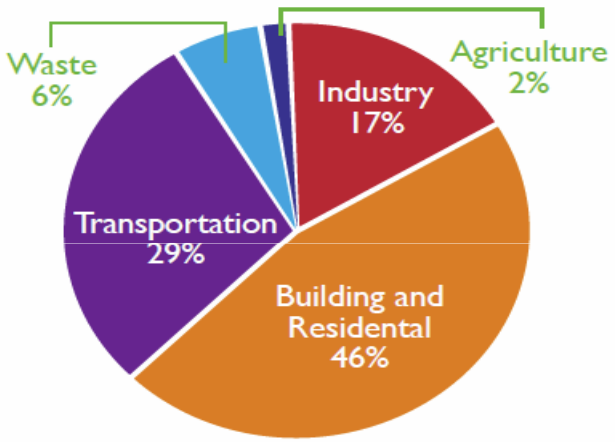
Voluntary GHG Mitigation Goals

- Reduce per capita emissions by 100 kg CO_2e annually, or 5%, within five years, and by 200 kg CO_2e annually, or 10%, within 10 years

Mitigation Measures

- **Buildings:** Encourage commercial building and home owners to select energy efficient products receiving the "Energy Label No.5"; raise awarenesson energy saving behaviors; adopt clean energy in public buildings
- **Transport:** Add public buses and improve routes to minimize personal vehicle use; convert public fleets to run on NGV and biofuels; encourage city residents to use bicycles
- **Waste:** Install municipal waste separation belt to sort organic waste and recyclables from general waste prior to landfill disposal, avoiding 448.4 tCO_2e over 10 years from landfill methane; install biogas digester
- **Agriculture:** Convert unused land area to rice fields and construct municipal rice mill for local processing and consumption, avoiding 61.6 tCO_2e from transporting rice from elsewhere
- **Urban Green Spaces:** Increase area dedicated to public parks;green and improve pedestrian routes to promote exercise and reduce motorcycle use

Muangklang GHG Emissions by Sector (2010)



Total GHG Emissions: 41,741 tCO_2e

Co-Benefits

Mitigation measures in waste in Muangklang also lower solid waste disposal costs for municipal authorities, generate new revenues from sale of recyclables, and extend the life of the landfill. The new rice mill helps generate income from rice sales, reduces dependence on the rice market and purchasesfrom outside the municipality, and promotes food security for the local community.

Umsetzung: Kommunen sind die Basis

Factors for Success

- Local government leaders must have under standing and political will
- Involve stakeholders early and throughout the process
- Show stakeholders compelling co-benefits from GHG mitigation measures
- Communicate and raise awareness on good practices
- Help build readiness and capacity of entities in charge at the local level

What's next?

- Link voluntary GHG mitigation in cities with the carbon market
- Network with other cities to share and build on experiences

Thailand Experience on Sustainable City: Its Policy and Implementation

Department of Environmental Quality Promotion/ Office of Natural Resources and Environmental Policy and Planning

Ministry of Natural Resources and Environment

Moving toward green cities' Thailand

Indicator

1. Impact: 1. Green House Gas Reduction
   10-20% in 2020
   2. Appropriate Solid Waste
   Management 50-65% of all municipalities
2. Outcome: - Clean air
   - Clean land (Solid waste)
   - Clean water (Domestic wastewater)
   - Low carbon cities
   - City planning
   - City forest
4. Output: Project Implementation / activity levels

Green Growth Strategy

Thailand's Economic Development towards Sustainability

- Economic – Stability / Environmental Friendly
- Society – Equity / Reducing poverty
- Environment – Sustainable Management / Wisely Use
- People – Empowerment / Participation

- Low Carbon Society
- Zero Waste
- Green Products
- People Participation

- Value added creation
- Global-local linkage
- Niche market
- Area-based

- Natural resources-based
- Cheap labor
- Mass productivity

Linkage to ASEAN - ESC Model Cities

The project is encouraging and supporting an innovative and voluntary bottom-up for community's capacity-building through public participation process

Thailand ASEAN ESC Model Cities (2014)

ASEAN - ESC Indicators

Sustainable Cities Model (ONEP, DEQP)

Low Carbon Cities Model (TGO)

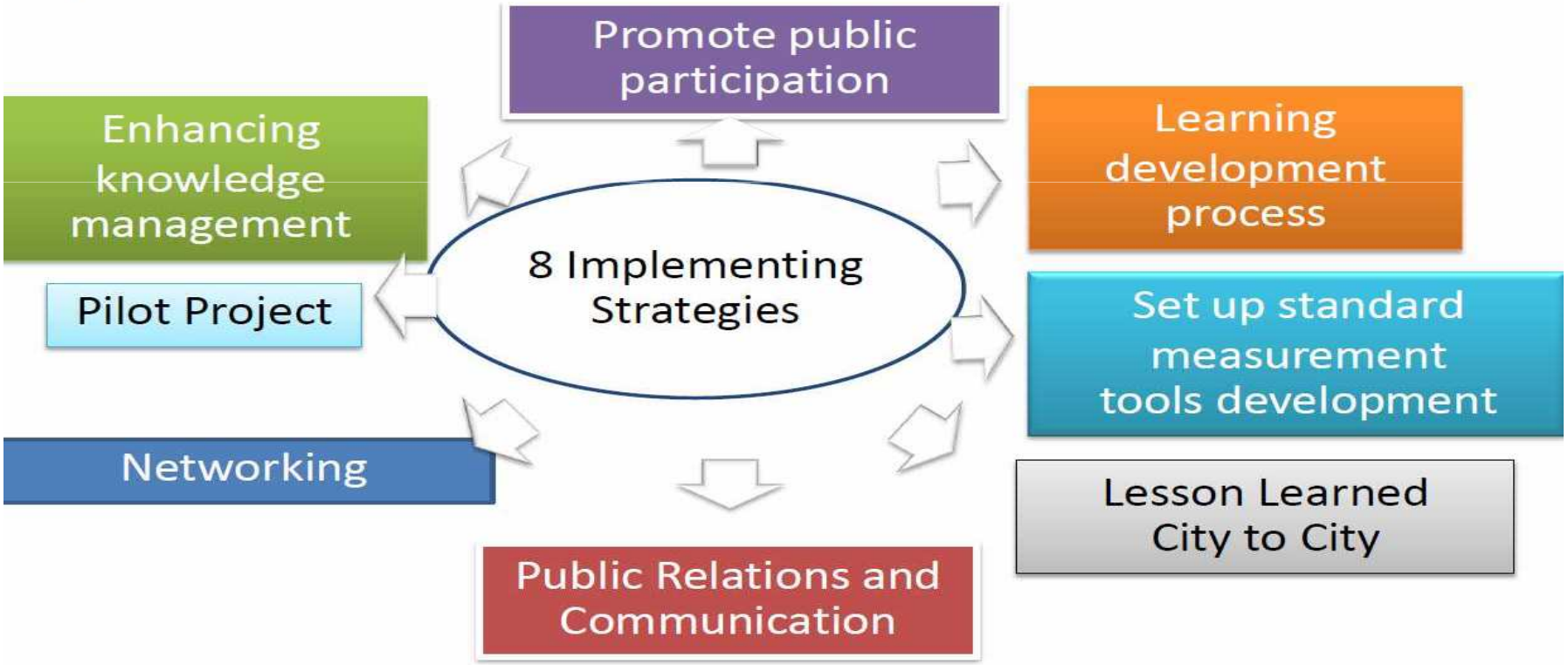
Clean and Green Cities (PCD)

- ***Objective:***
  - to promote the concepts of ASEAN ESC
  - to build up ASEAN ESC Cities Networking Model
  - to share best practices of ESC model
- ***Target group:***
  - Selected Municipalities
- ***Stakeholders:***
  - Government sector
  - NGOs
  - Institutions
  - Private sector
  - International Development Organization

Networking establishment:

Thailand Sustainable City Strategies

Implementation and Assessment



Sustainable City

Purpose: Initiative local government moving toward Sustainable City

Objective:

- To strengthen local government in natural resources and environmental management
  - imply the city's sustainable indicators through their self-assessment process;
  - Promote public participation in the city

Project Implementation:

- Project implementation: 15 local governments as pilot sites, 485 local governments collaborating and joining the project as the network- 'Sustainable City Network'

„Smart city Nakhin Nayok erste smart city".

2012 hat das "Ministry of Information and Communication Technology" die “Smart Thailand Strategy" verkündet, um die Wettbewerbsfähigkeit Thailands am Vorabend "Asean Economic Community (AEC, 2015) zu sichern.

Ein erster Schritt dazu war die Wahl der Provinz "Nakhon Nayok" als erste nationale "smart city".

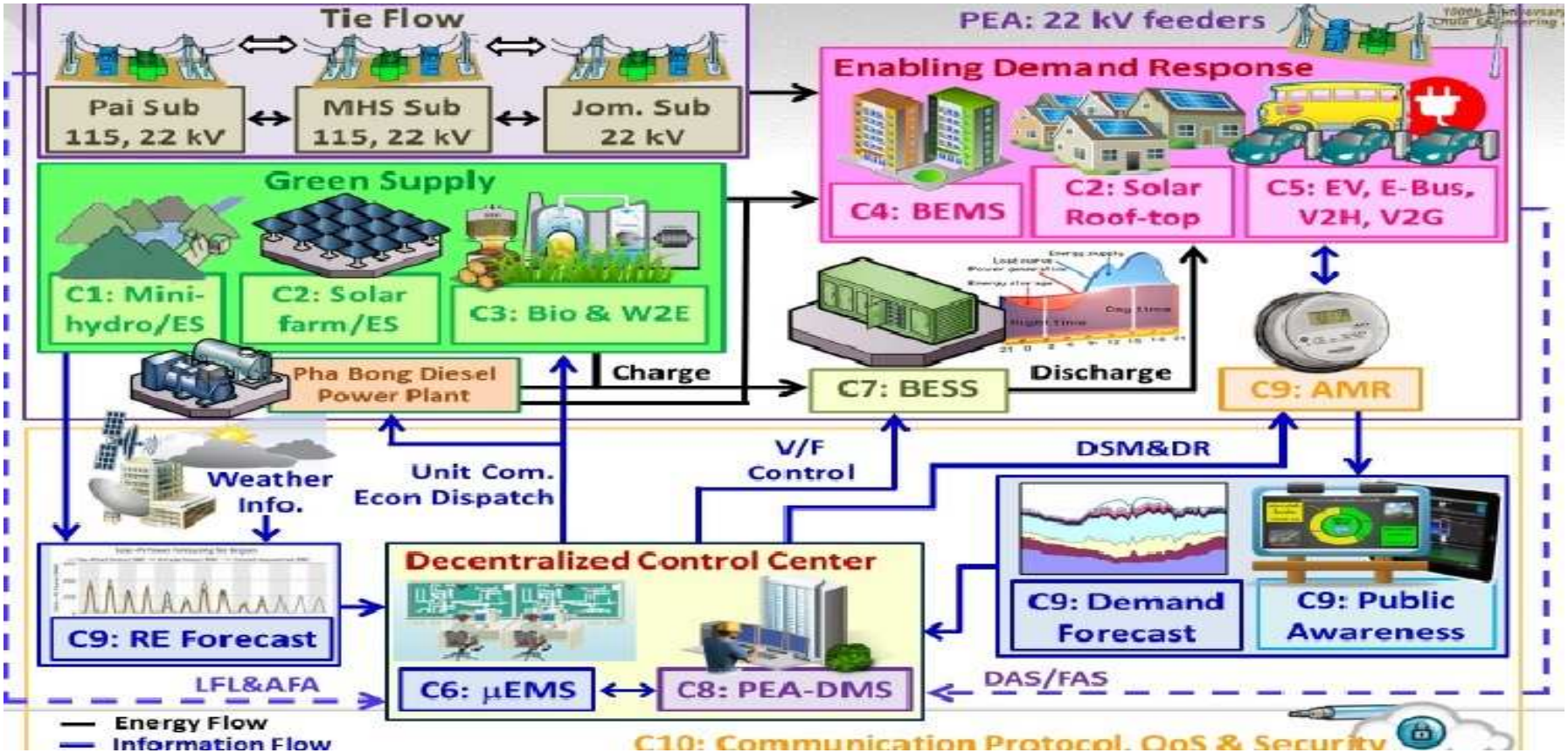
Smart Grid Master Plan of Thailand # Energy Efficiency

Thailand is one of the most energy intensive countries in ASEAN region. Therefore an intelligent electricity supply infrastructure is increasingly becoming vital to accomplish the required expansion of energy supply. The market for intelligent smart grid solutions in Thailand is growing.

Introduction of
- Energy management systems, such as LED,
- electro mobility charging solutions
- performance monitoring
- modern low carbon building program
- focus on cooling Systems
- future grid transmission & energy storage.

Investment plans for an energy efficient power supply and an improved grid infrastructure are in place. In addition, Pilot projects have been launched by Thai utilities in **Pattaya** and **Mae Hong Son**.

Flow Smart: Grid Master Plan of Thailand – Pilot Projects



Feasibility Study for Samui Island, Thailand

submitted to

Asia-Pacific Economic Cooperation

Asia-Pacific Economic Cooperation (APEC)
Energy Working Group (EWG)

LCMT Measures for SAMUI Island

1. Town Structure Planning
2. Transportation Planning
3. Area Energy Planning
4. Area Energy Management
5. Renewable Energy
6. Untapped Energy Use Planning
7. Low Carbon Building
8. Eco-Lifestyle
9. Environmental Planning

9 BASKETS of LCMT Measures

Area Energy Planning

EE Power from Mainland – Submarine Cable – 193 MW

Potential of EE Generating on SAMUI using LC Emission Sources/Technologies ~ 100 MW

50%

ASEAN - Regionale Kooperation

11TH IMT-GT CHIEF MINISTERS AND GOVERNORS' FORUM (9TH CMGF)

STATE/PROVINCIALS' REGIONAL COOPERATION PROJECT

THAILAND

imt-gt

CMGF Thailand

INDONESIA-MALAYSIA-THAILAND
GROWTH TRIANGLE
98°00'E
104°00'E
MYANMAR
THAILAND
PENINSULAR MALAYSIA
SINGAPORE
Andaman Sea
South China Sea
Straits of Malacca
Simeulue Islands
Nias Islands
Langkawi Island
Penang Island
Riau Islands
Chumphon
CHUMPHON
Ranong
RANONG
Surat Thani
SURAT THANI
PHANGNGA
Phangnga
Nakhon Si Thammarat
NAKHON SI THAMMARAT
PHUKET
Phuket
Krabi
KRABI
Trang
TRANG
Phatthalung
PHATTALUNG
Songkhla
SONGKHLA
Pattani
PATTANI
SATUN
Satun
NARATHIWAT
Narathiwat
Yala
YALA
Kota Bahru
Kuala
Kangar
PERLIS
Alor Setar
KEDAH
Kepala Batas
George Town
Bayan Lepas
PENANG
Kuala Terengganu
KELANTAN
TERENGGANU
Ipoh
PERAK
PAHANG
Kuantan
SELANGOR
Shah Alam
KUALA LUMPUR
NEGERI SEMBILAN
Subang
Sepang
Seremban
Batu Berendam
MELAKA
Melaka
JOHOR
Senai
Johor Bahru
Sigli
Lhokseumawe
Langsa
Rimba Raya
D.I. NANGROE ACEH DARUSSALAM
Belawan
Medan
Binjai
Tebingtinggi
Kisaran
Pematangsiantar
Rantau Prapat
NORTH SUMATRA
Sibolga
Tebing Tinggi
Dumai
Aek Kanopan
Pekanbaru
RIAU ISLANDS
Tanjung Pinang
N
0 50 100 150 200 250
Kilometers

Chancen für Deutsche

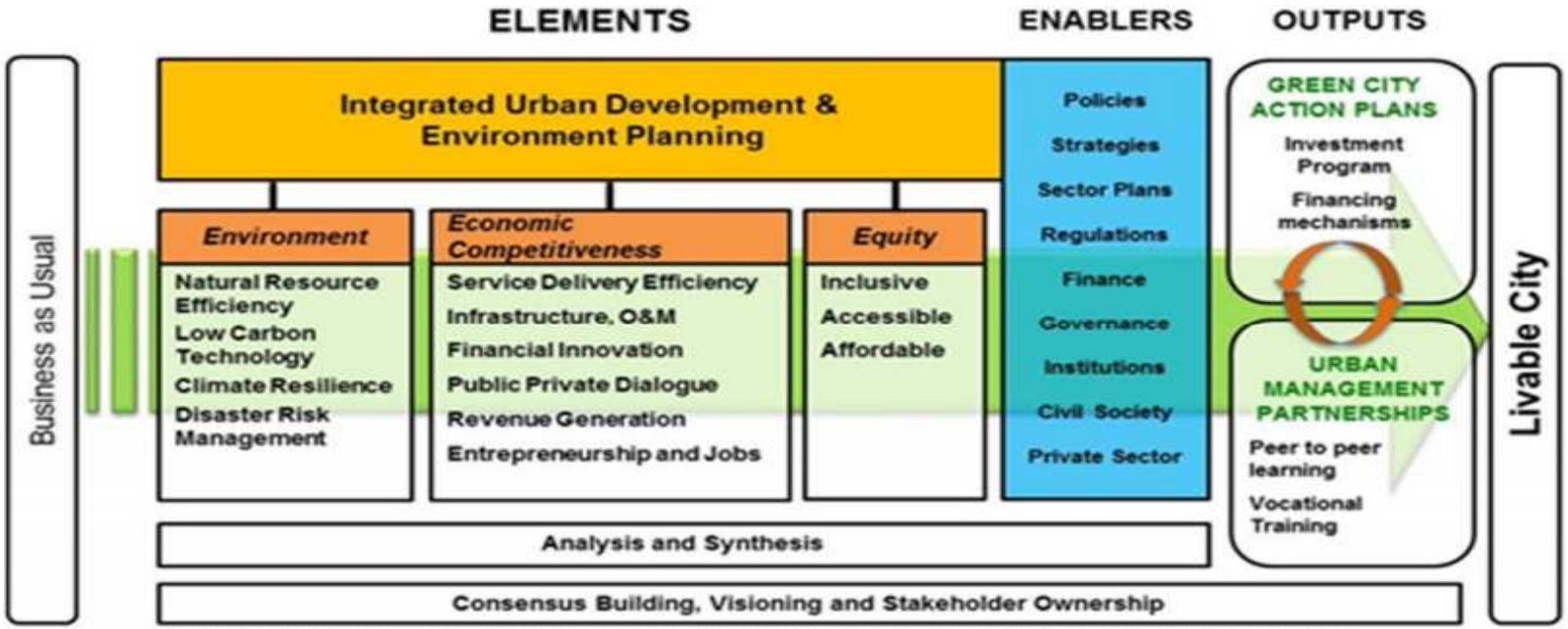
Songkhla: Old Town Route in the Green Cities

Asia Leadership Program

on Sustainable Development and Climate Change

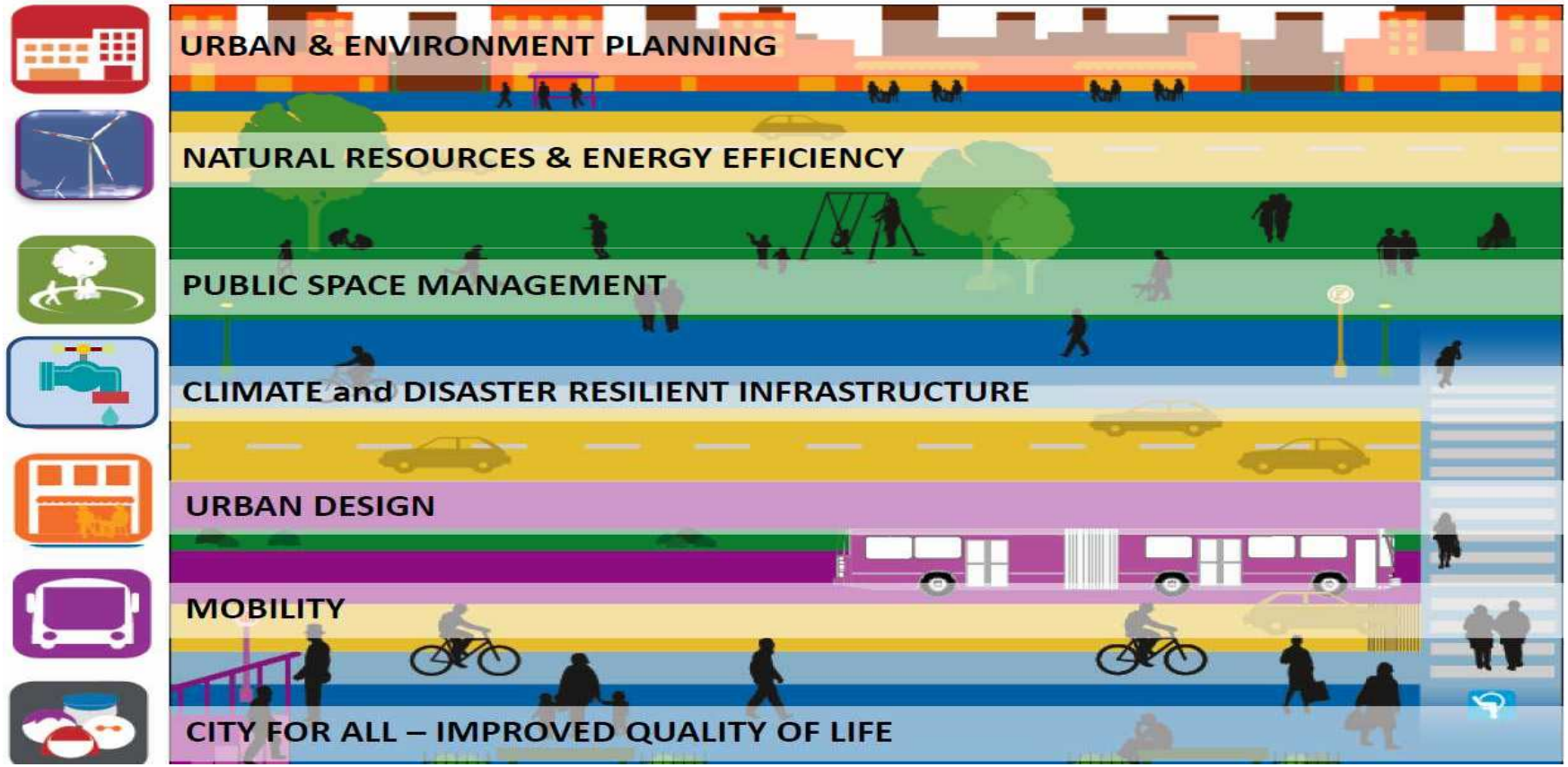
GREEN CITIES

GrEEEn Cities Operational Framework



ADB 2014. (*forthcoming*) Sonia Chand Sandhu and Ramola Naik-Singru. *Enabling Green Cities: An Operational Framework*. Regional capacity development technical assistance R-CDTA 8314. ADB Policy Brief. ADB: Manila

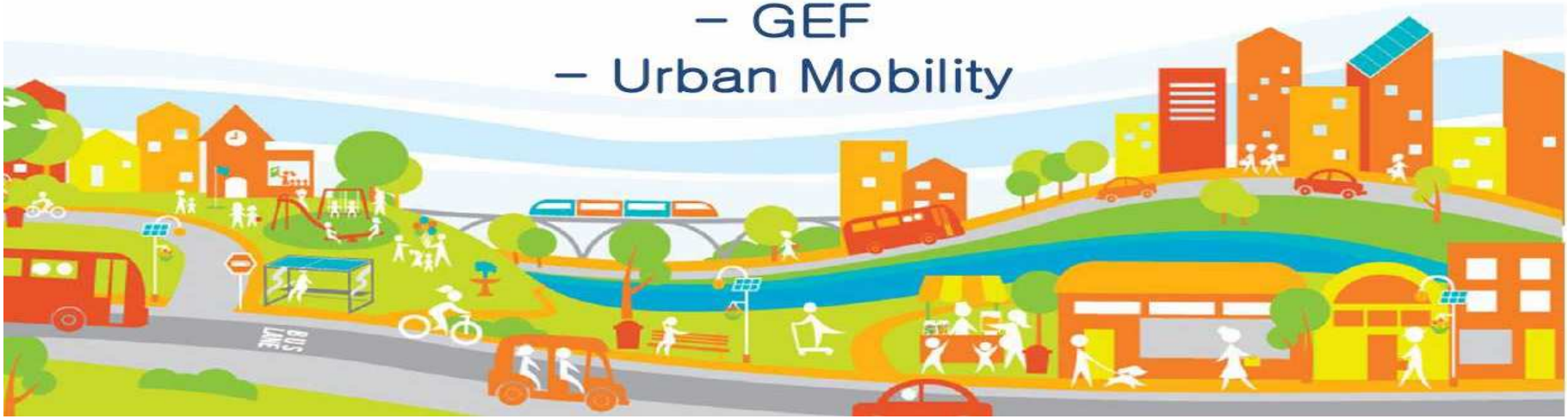
SNAPSHOT: GREEEN CITY ACTION PLAN



Economy + Environment + Equity

Enabling GrEEEn Cities

I. Concept
II. The Operational Framework
III. Platform for Engagement
– Investment Project
– GEF
– Urban Mobility



3rd. ASEM-Europa Governors and Mayors Meeting Bangkok, 2015

Governor Sukhumbhand Paribatra, 2015

Aus Deutschland dabei……

Bangkok signs Haikou Declaration 2014

ASIAN MAYORS FORUM 2008

Haikou Declaration
25 November 2014

H.E. Sukhumbhand Paribatra,
Governor of Bangkok, Haikou 2014

Bangkok + Phatum Thani sign Magdeburg Protocol 2014

26.11.2014: Zu den Unterzeichnern des „Magdeburger Protokolls“ gehören neben Magdeburg die Städte Bala/Ankara (Türkei), Bangkok (Thailand), Harbin (China), Provinz Pathum Thani (Thailand), Saporoshje (Ukraine), Warschau (Polen), Wiener Neustadt (Österreich), Taipeh (Taiwan), La Pobla de Vallbona (Spanien), Tübingen (Deutschland) sowie Vertreter der Mongolei.

China`s IGEA joins Magdeburg Protocol, Jan. 2015

City to City Collaboration between BMA and City of Yokohama through Y-PORT Project

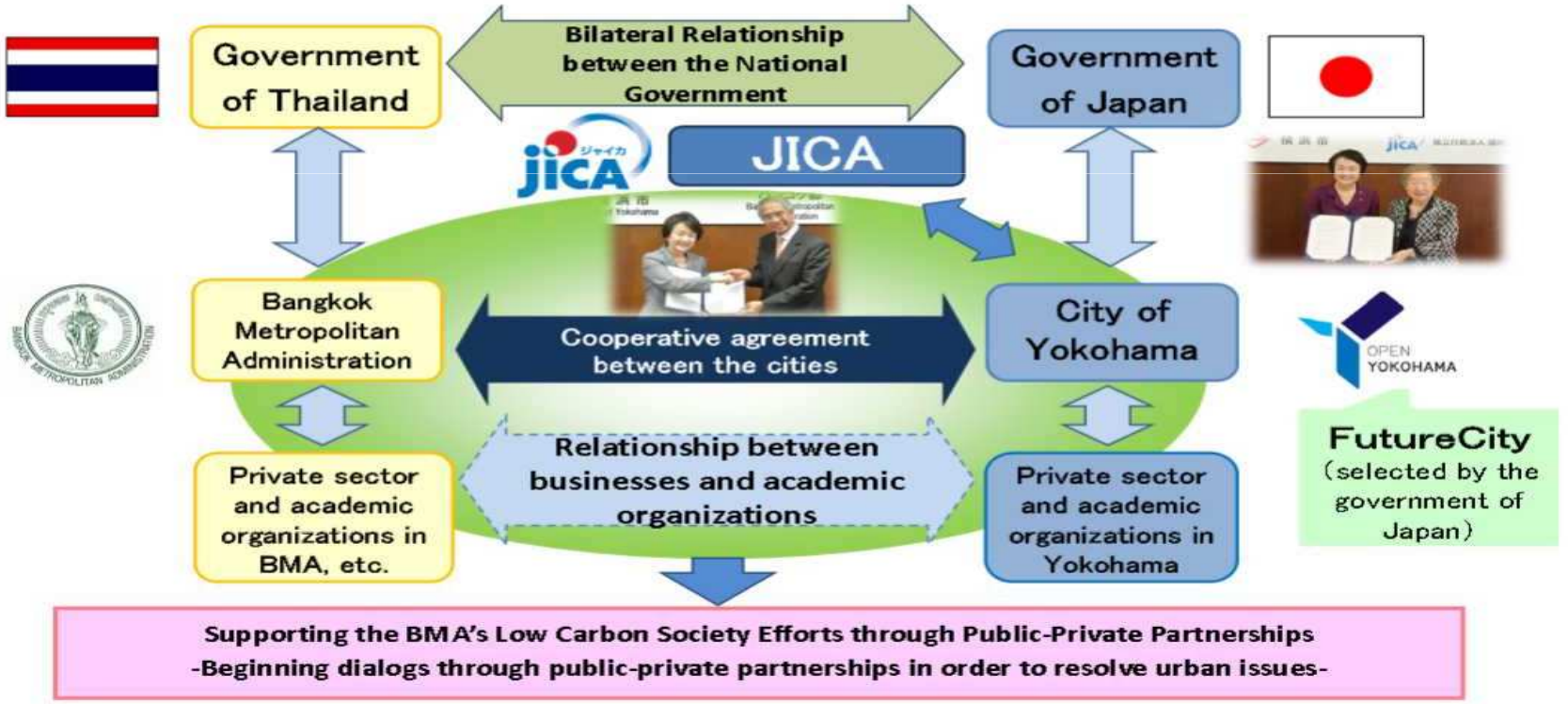
Noriaki Yoshino
Climate Change Policy Headquaters, City of Yokohama

High-level delegations from BMA (after signing the MoU)

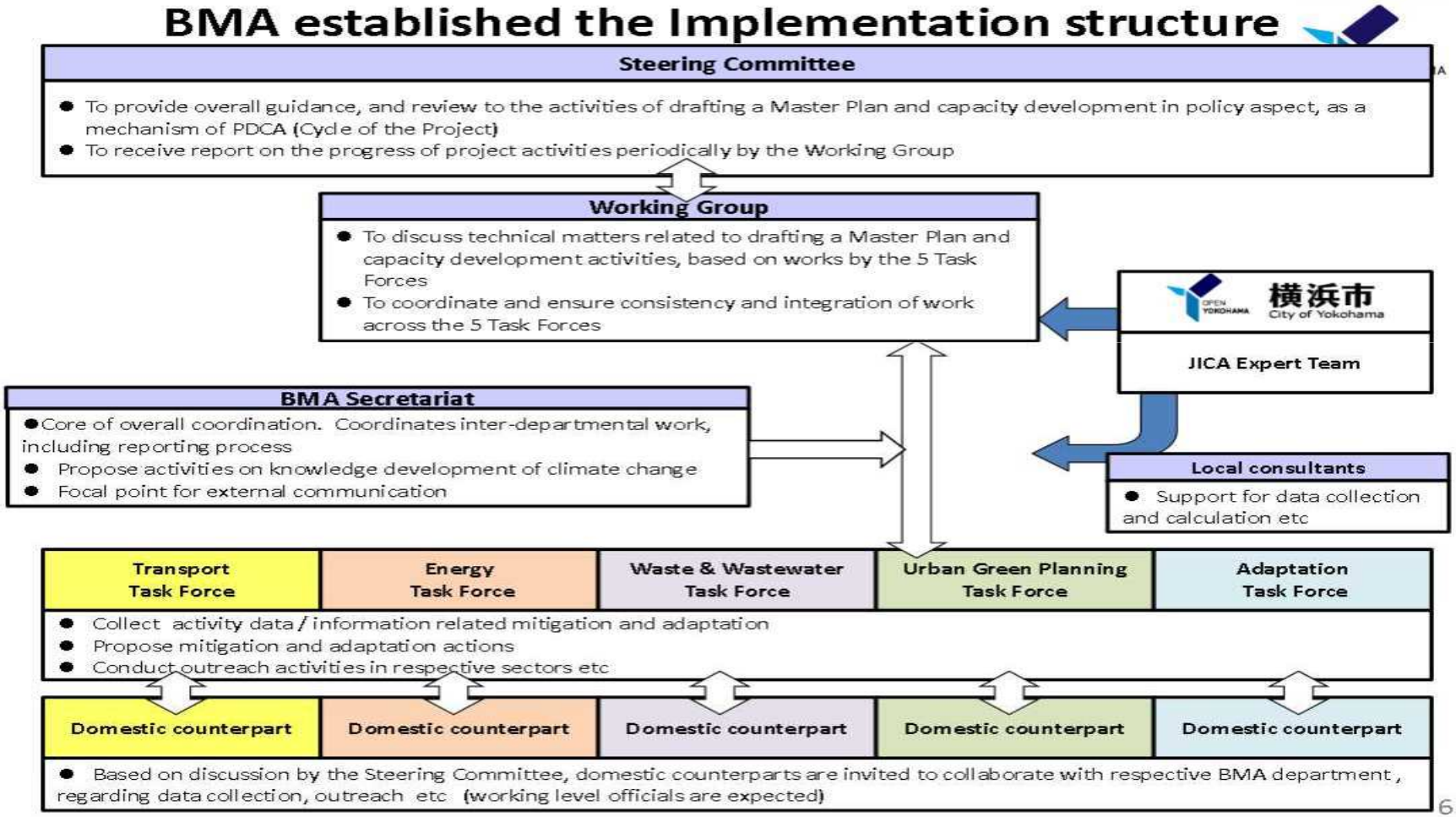
Date	Title	Head of Delegation from BMA	Number
28 Oct '13	JICA training on climate change	Ms. Suwanna Jungrungrueng Deputy Director General , Department of Environment, BMA	15
24 Jan '14	Flood management	Mr. Kangwan Deesuwan, Deputy Director General, Department of Drainage and Sewerage	21
17 Feb '14	Special Nursing Home and disaster management	Ms. Suwannee Chaichindasut, Director of BMA Training And Development Institute Office Of The Permanent Secretary	68
18-24, Apr '14	JICA training on climate change	Mr. Vichai Somboon, Chief of Project Management Section, Main System Development Division, Department of Drainage and Sewerage, BMA	15
7 May '14	TOD development / Stadium management	Mr. Sukhumbhand Paribatra, Governor and The Krungthep Thanakhom Co.Ltd.	9
26 May '14	Stadium management	Ms. Pranee Satayaprakop Director General of Culture Sports and Tourism Department	10
27 May '14	Information Management for Sustainable Development	Mr.Thun Silathong, Deputy Director General of City Planning Department	29
23 Jul '14	City Planning and Disaster prevention	Mrs. Piengjai Visrutaratna, Adviser to the Governor of Bangkok	52
27 Oct - 5 Nov '14	JICA training on climate change	Ms. Supaporn Wongwattanasiri, Plan and Policy Analyst Practitioner level, Agriculture, Natural Resource and Environment Planning Office	17
Total			236

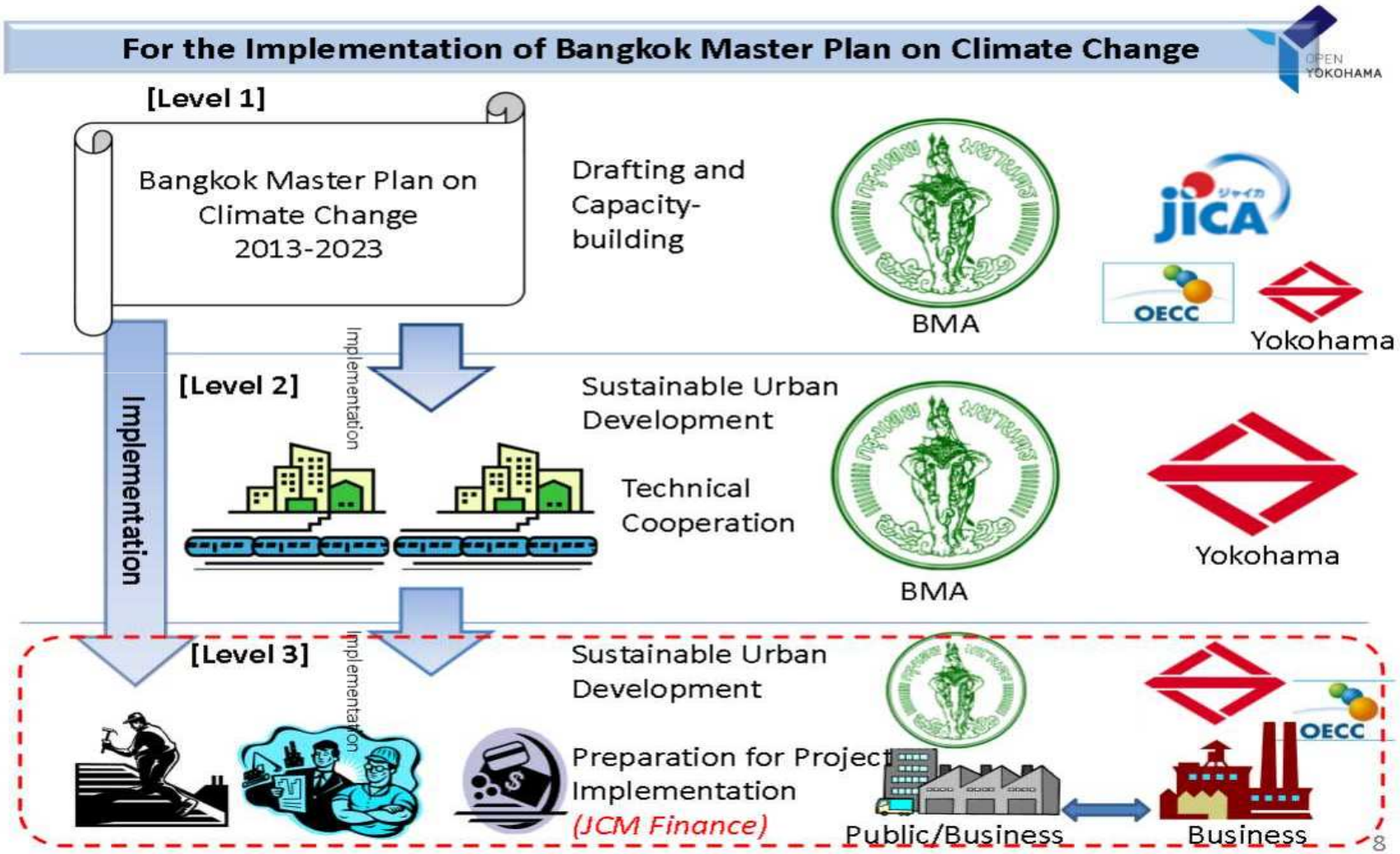
City to City's Cooperative Relationship

Activities based on the City to City Cooperative Relationship



BMA established the Implementation structure




For the Implementation of Bangkok Master Plan on Climate Change
OPEN YOKOHAMA
[Level 1]
Bangkok Master Plan on Climate Change 2013-2023
Drafting and Capacity-building
BMA
JICA
OECC
Yokohama
Implementation
[Level 2]
Sustainable Urban Development
Technical Cooperation
BMA
Yokohama
Implementation
[Level 3]
Sustainable Urban Development
Preparation for Project Implementation
(JCM Finance)
Public/Business
OECC
Business
8

Feasibility Studies/Project Finding at Level 3 (to be funded by the MOEJ)

Activities in Thailand

GHG Reduction Project (JCM Project) Finding Seminar

- To boost formulation of JCM projects, project finding seminar will be organized, inviting stakeholders in Bangkok and Yokohama (Public and Private)

GHG Reduction Project (JCM) Match-making Session

- For facilitating communication between Bangkok and Yokohama stakeholders, match-making session will be organized, aiming at FS or project finance by the Japanese Government.

Low Carbon Technology Expert Dispatch/Diagnosis

- For the benefit of Bangkok stakeholders (public/private), low carbon technology experts will be dispatched to provide analysis for improvement of project site (facilities, production processes etc).

BMZ Projekt 2015: 50 kommunale Klimapartnerschaften mit Südostasien

Bis zum 15. August 2015 können deutsche Kommunen Interessenbekundungen an der kommunalen Kooperation auf dem Gebiet des Klimaschutzes mit einer Kommune in Südostasien bei der Servicestelle Kommunen in der Einen Welt von Engagement Global abgeben:

Tel.-Auskünfte: 0228-20717-338.

Thailands Städte und Regionen bieten sich als neue Partner an.

The Summit 2015 Bangkok: 18 - 21 November 2015

Host City 2015: Bangkok, Thailand

Vist Thailand

ASEAN Region

Bangkok Advisory Board

Attend the Summit

Partnerships

Plenary Sessions 2015

Opening Ceremony

Closing Ceremony

Vielen Dank und: Willkommen in Thailand !

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