e-ASIA JOINT RESEARCH PROGRAM 2<sup>nd</sup> WORKSHOP on Intelligent Infrastructure SESSION 1 : Urban and Regional Environmental Planning-Implementation

# Conclusion

### Dec.12, 2014

### Mikiko Ishikawa

Professor of Chuo University, Emeritus Professor of Tokyo University

### Issue 1 Climate Change Vulnerability e-Asian countries are the most climate change vulnerable and disaster-prone countries in the world

Climate Change Vulnerability Index 2011

Pakistan

Extreme



10/oct/21/climate-change-superpowers#

maplecroft



## How can Metro Manila cope?



### THE GREAT 2013 PHILIPPINE DISASTERS



TYPHOON HAIYAN 2013 in SAMAR and LEYTE

### THE GREAT 2013 PHILIPPINE DISASTERS



TYPHOON HAIYAN 2013 in SAMAR and LEYTE

### **Issue 3 : Destruction of Forests**



2014&date=29

## **Urban Network Model**

Regional Scale
Mega city Scale
Small city Scale
Rural and village Scale

Observation Modelling Optimization & Planning Implementation

### Fundamental Projects of e-Asia for creating Environmental Infrastructure towards Intelligent City

#### 1. Regional Scale

- To consider the connection between ASEAN countries, and identify "Economic and Ecological Corridor" in Southeast Asia
- For Regional Planning, water basin management is necessary
- Fundamental Strategy for creating Environmental Structure

#### 2.Mega City Scale

• For creating environmental structure, the research and planning are necessary for Manila, Yangon, and Bangkok.

### **3. Rural and Village scale**

 To create Model City toward Intelligent city along economic and ecological Corridor

#### **4.Innovation**

Introducing and innovating of Green Technologies

## 1. Regional Scale

## Green and Economic Corridor in Southeast Asia



## Necessity to introduce Water Basin Management in case of MANILA

### EARTHQUAKE FAULT:

Traversing the course of the Marikina River is the Marikina Valley Fault System, part of the seismically active network of fault lines surrounding Metro Manila, placing it at serious risk of earthquakes.



## Water Basin Management



Fundamental Strategy for creating Environmental Structure Vietnam Green Growth Strategy (VGGS)

## VGGS: Definition and Time Frame

- Viet Nam definition of Green Growth
  - The green growth in Vietnam is a growth model based on the process of changing growth models, restructuring the economy with an aim to fully exploiting comparative advantages, increasing economic efficiency and competitiveness through research into and application of advanced technologies, developing modern infrastructure systems to efficiently use natural resources, reducing greenhouse gas emission, responding to climate change, contributing to hunger eradication and poverty reduction, and creating driving forces to promote sustainable economic growth.

### Time duration:

2011 - 2020 with Vision towards 2050

# 2. Mega City and City Scale

- Efficient energy
- Compact city
- Good public transportation system
- •Zero wastes
- Environmental friendly
- Climate resilient infrastructure system
- Integrated ecological services in development policies
- •Low-carbon development

#### e-ASIA JOINT RESEARCH PROGRAM, 2nd WORKSHOP on "Intelligent Infrastructure" December 11th - 13th, 2014

Addressing Urban Environmental Issues of Yangon through Infrastructure Development

4. Current Infrastructure Development Planning in Yangon

Addressing Urban Environmental Issues through Infrastructure Planning

**Improvement of Road Network** 

#### ♦ INFRASTRUCTURE LAYOUT



Source: JICA

#### e-ASIA JOINT RESEARCH PROGRAM, 2nd WORKSHOP on "Intelligent Infrastructure" December 11th - 13th, 2014

#### Addressing Urban Environmental Issues of Yangon through Infrastructure Development

3. Urban Environmental Issues of Yangon

The Most Pressing Urban Environmental Issues

#### **Traffic Congestion**



# 3. Rural and Village Scale

## **Natural Co-Existence City**

### Image of Natural Co-Existence City With Green Technology





# Technologies : UAV



#### Observation by micro UAV

http://www.ists.co.jp/wordpress/ wpcontent/uploads/84861a0f05785 1f8a9236ecb51446847.png



## proposal

1. Creating Intelligent Model Town along "Economic and Ecological Corridor" of ASEAN

- 2. Park System Project in Manila, Yangon and Bangkok
- 3. Innovation of Green Technology for Intelligent City