

## AFC7 Open Forum

# “Asia's Megacities and Future Challenges”

Organizer: Atsumi International Foundation Sekiguchi Global Research Association (SGRA)

**August 10th (Saturday), 2024, 16:45 ~18:15**

Language: English

Venue: Crowne Plaza Ballroom

### Abstract / Overview

Asia, home to some of the world's most populous and dynamic cities, stands at the epicenter of unprecedented urbanization. This open forum focuses on the sustainable development of Asian megacities and the diverse challenges we face. It spans urban planning, technology, and social aspects, bringing together experts and participants to deepen their understanding and foster collaborative solutions.

### Program

16:45-16:55 **Opening**

**Dr. Supreede Duke Rittironk**

Thammasat University Faculty of Architecture & Planning

16:55-17:10 **Overview of the situation in Asia's Megacities**

**“Asia's Urban Giants: Balancing Growth, Demographics, and Sustainability”**

**Dr. Weijun Gao**

The University of Kitakyushu Department of Architecture

17:10-17:25 **Thai's Megacities and Future Challenges (Bangkok)**

**“Climate Change and Disaster Management, Environment and Energy, Health”**

**Dr. Pawinee lamtrakul**

Thammasat University Faculty of Architecture & Planning

17:25-17:40 **Philippine's Megacities and Future Challenges (Manila)**

**“METRO MANILA: THE PHILIPPINES' ONLY MEGACITY”**

**Prof. Michael V. Tomeldan**

University of the Philippines UPD College of Architecture

17:40-17:55 **Indonesia's Megacities and Future Challenges (Jakarta)**

**“A Net Zero Carbon Community as the Countermeasure of Unsustainable Development in Indonesia cities. Reflecting experience from Makassar City.”**

**Dr. Mochamad Donny Koerniawan**

Bandung Institute of Technology ITB Architectural Design

17:55-18:15 **Discussion and Q&A**

## Speakers

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### Opening



#### **Dr. Supreede Duke Rittironk,**

Thammasat University Faculty of Architecture & Planning

Ph.D. in Bamboo Architectural Design / Construction Management / Construction Technology / Sustainable Design & Construction

Supreede is currently the Vice Rector for International Affairs, Thammasat University, where he is also an Associate professor at Faculty of Architecture and Planning. His background is an architect, and he holds the architectural license in the US. He received his Ph.D. in Architecture from Illinois Institute of Technology. His research involves bamboo architecture and other sustainable building materials.

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### Overview of situation in Asia's Megacities



#### **Dr. Weijun Gao**

The University of Kitakyushu Department of Architecture

Doctor of Engineering.

Weijun Gao is a tenured professor at the University of Kitakyushu, Japan, and an Academia Professor at the Qingdao University of Technology, China. He has been a visiting professor at many universities in China and the USA, such as Xi'an Jiaotong University and Zhejiang University, China, and Lawrence Berkeley National Laboratory, USA. His research interests include city environment planning, energy system, material recycling, and climate change.

### **“Asia's Urban Giants:**

### **Balancing Growth, Demographics, and Sustainability ”**

Firstly, we delve into the population dynamics of Asia's megacities and will examine cities like Tokyo, Delhi, Shanghai, and Jakarta, showcasing their staggering population sizes and diverse demographics.

Secondly, the urbanization process in these megacities will be analyzed. We will discuss the implications of urban sprawl, informal settlements, and the strain on public services like transportation and sanitation.

Lastly, this presentation addresses critical environmental issues stemming from urbanization, including air and water pollution, waste management challenges, and the impact on green spaces and biodiversity. Strategies for sustainable development and mitigation efforts will be explored, underscoring the importance of balancing economic growth with environmental conservation. Through this examination of Asia's megacities, we aim to understand the complex interplay between population growth, urbanization, and environmental sustainability.

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## Thai's Megacities and Future Challenges (Bangkok) Dr. Pawinee Iamtrakul

Thammasat University · Faculty of Architecture & Planning  
Doctor in Urban and Transportation Planning.

Pawinee is currently Director of COE in Urban Mobility Research and Innovation, Thammasat University. She specializes in urban and transportation planning by considering all aspects related to urban transport, sustainable transport, road safety, public transport and non-motorization. She utilizes an integrated research approach which incorporates all urban elements, land use, infrastructure, economics, social, energy and environmental aspects.



### “Climate Change and Disaster Management, Environment and Energy, Health”

The emergence of megacities in Thailand has been characterized by large populations, extensive urban sprawl, and high levels of economic activity. Megacities like Bangkok face numerous issues such as traffic congestion, pollution, inadequate infrastructure, and socio-economic disparities. These problems are not just local but have far-reaching consequences that affect the entire country and even the region. The rapid growth of megacities presents a critical problem by posing challenges to both resource sustainability and the health and well-being of residents. The dense population, pollution, and inadequate infrastructure in megacities can have severe implications for public health. Environmental problems and overcrowded living conditions contribute to the spread of diseases, respiratory problems, and other health issues. Moreover, the stress and fast-paced lifestyle of urban living can negatively impact public health and overall quality of life.

To address these multifaceted challenges, it is imperative to employ sustainable indicators that encompass environmental, social, and economic dimensions. These indicators enable continuous monitoring and facilitate informed decision-making for both short-term interventions and long-term planning initiatives. Continuous monitoring using sustainable indicators is crucial for tracking the impact of urban development interventions and identifying areas for improvement. This requires a holistic approach that integrates environmental conservation, social inclusion, and economic development. By integrating sustainable practices and fostering community engagement, policymakers can strive towards creating resilient, livable, and equitable megacities that prioritize the welfare of their inhabitants while ensuring sustainability.



## Philippine's Megacities and Future Challenges (Manila)

### Prof. Michael V. Tomeldan

University of the Philippines UPD College of Architecture  
Masters in Urban and Regional Planning.

Michael V. Tomeldan has an Architecture degree and a master's degree in Urban and Regional Planning from the University of the Philippines. He is a professor at the University of the Philippines College of Architecture. His professional experience includes Urban Planning, Land Use Planning, Tourism Planning, Master Planning, and Urban Design. He is a partner in Tomeldan, Alli, & Molina Planners Co., which formulated Comprehensive Land Use Plans for several component cities in Metro Manila (e.g., Taguig, Pasay, Pasig, Makati). TAM Planners Co. is currently doing the Regional Physical Framework Plan for Metro Manila.



### “METRO MANILA: THE PHILIPPINES’ ONLY MEGACITY”

The word megacity entered common use in the second half of 20th century when cities were reaching unprecedented populations. Mega-cities were defined as cities reaching a population of 10 million, a number that was considered alarming and difficult to manage. Today there are 37 or more mega-cities in the world with Asia having the most. The Philippines like the rest of the world is rapidly urbanizing but has only Metro Manila that has breached 10 million people. Manila has historically been the capital of the Philippines since the Spanish Colonial period in the 16th century and has continued to be the political and economic capital since its independence in 1946. In 1975, seventeen component cities with Manila as its core were constituted into Metro Manila (a.k.a. National Capital Region). Metro Manila today has a population of 13,484,462 (2020 Census) which is about 12.37% of the country's total population. The metropolis has a land area of 636 square kilometers or only less than one percent (0.19%) of the total land area of the Philippines yet contributes more than 31.8 percent to the national GDP.

Metro Manila must plan and manage itself to continue to thrive as the country's political, financial, and political center and as a significant regional hub in Southeast Asia. The current urban development challenges that it must focus on include limited land for future expansion, climate and disaster risks, overburdened infrastructure, lack of parks and open spaces, shortage of housing, and poverty.



## Indonesia's Megacities and Future Challenges (Jakarta) Dr. Mochamad Donny Koerniawan

Bandung Institute of Technology ITB Architectural Design  
Doctor of Engineering.

Mochamad Donny Koerniawan currently works at the Architectural Design Department, Bandung Institute of Technology. Mochamad does research in Architectural Engineering and Environmental Engineering. Their current project is "Kampung" Smart and Green, Low Carbon City and Thermal Comfort in outside and inside Building.



### “A Net Zero Carbon Community as the Countermeasure of Unsustainable Development in Indonesia cities. Reflecting experience from Makassar City.”

The issue of unsustainable development in Indonesian cities has become a growing concern, and as such, measures are being taken to counteract this problem. One such measure is the creation of Net Zero Carbon Communities, which aim to reduce carbon emissions and promote sustainable living. Reflecting experience from Makassar City, the main objective of this paper is to provide a comprehensive overview of the innovative strategies implemented by Makassar city in achieving net zero community status. This concept has gained significant attention in Indonesia. By sharing these strategies with other cities, especially Jakarta, we hope to encourage more Indonesian cities to adopt similar practices and contribute towards a greener and more sustainable future for the country.

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