Preface

Economic, social and cultural activities, as well as environmental and human impacts, are increasingly concentrated in and around cities. In the era of planetary urbanization and technological revolution, cities have transformed beyond their proper borders into hinterlands, city-regions, urban corridors, and megaregions. As a consequence, development challenges have become far more complex than were anticipated in the ‘traditional’ conception of the ‘city’. Transforming beyond their natural and human resources and institutional capacity, cities currently face significant sustainability challenges in terms of governance; land and housing; basic services; food, water and energy security; and disaster risks.

In 2016 the United Nations Habitat Agenda set out the New Urban Agenda (NUA), which seeks to create a mutually reinforcing relationship between this trend of expanding urbanization and development. In this context, urbanization will be seen to become a parallel vehicle for achieving sustainable development. The NUA attempts to address the development trends while also recognizing that cities and metropolitan areas are the major drivers of regional, national, and global economies. The idea of the NUA is to offer guidelines on a range of ‘enablers’ that can further strengthen the relationship between urbanization and sustainable development. In this context, infrastructure in its widest sense will be a key vehicle for achieving sustainable urban development.

Currently, the NUA has not been properly recognized and integrated in urban, regional, and infrastructure development strategies. In fact, there has been a limited recognition of the NUA in the current academic research and policy-making processes. Considering the urgency of the NUA in the planning, development, and governance of contemporary cities, we should start incorporating the agenda into academic research and policy making, as well as communicating its problems and potential solutions in a scholarly and practically relevant discourse.

Therefore, we held the First ITB Centennial and Fourth Planocosmo International Conference in the main campus of Institut Teknologi Bandung, Bandung, Indonesia, on 2-4 April 2018. The conference theme was “Transforming beyond Borders, Starting the New Urban Agenda”. The aim of the conference was to discuss infrastructure, transportation, and planning issues in the context of New Urban Agenda (NUA), which are centered on: connectivity, inclusiveness, resilience, security, and governance. The conference was a special opening event to commemorate the Centenary of Indonesian Higher Education in Engineering and the 60th Anniversary of Urban and Regional Planning Education in Indonesia. The event was organized by the Urban and Regional Planning Study Program under the School of Architecture, Planning and Policy Development, Institut Teknologi Bandung and the Research Center for Infrastructure and Regional Development, Institut Teknologi Bandung.
While several papers were invited for publication in Journal of Regional and City Planning, these proceedings were prepared as the main publication outlet for most papers presented at the conference. The proceedings consist of 56 selected papers, which are distributed to several interrelated parts resembling the tracks organized during the conference.

The first part, Informal Urbanism and Inclusive Development, consists of five articles focusing on the issues of informality-formality in designing and planning urban spaces in various contexts across the globe. The second part, Urban Land and Housing System, presents six papers in the topics of housing for everyone, housing development and finance, gentrification, and urban heritage. The part of Infrastructure and Transportation System includes 14 papers dealing with infrastructure provision and management, inclusive and sustainable transportation system, technology for Intelligent Transportation System (ITS), Transit Oriented Development (TOD) and compact cities, and megaproject planning and management.

Meanwhile, nine papers in Environmental Planning and Management concentrate the discussion on the topics related to energy security and planning, coastal zone management and marine planning, climate change adaptation, socio-ecological resilience, and green cities and ecotourism. As another part of the proceedings, Disaster Risk Reduction brings together five accepted papers that pay attention to pre- and/or post-disaster reconstruction and rehabilitation planning and management and also community preparedness towards disaster.

Peri-urbanization and Regional Policy is the next part of these proceedings containing five papers, which concerns with infrastructure of peri-urban and suburbanization. Regional Innovation and Smart City System becomes the part of the proceedings comprising nine papers focused on smart city and big data, infrastructure 2.0, planning in a digital era, creativity and innovation, and sharing economy and sharing cities. The last special part is Rural Transformation and Small-Town Planning, which is dedicated to those interested in reading rural-urban linkages with three papers.

These proceedings were not possible to be completed without the restless effort of our technical team. Therefore, our sincere thanks go to our colleagues Fikri Zul Fahmi, Lisna Rahayu, Dika Fajri Fiisabilillah, Aryani N. Chandramidi, Nabilla Dina Adharina, Yustina Octifanny, Gina Puspitasari Rochman, Sosrowinarsito and Ivanie Destila Sari. Other colleagues in the conference’s organizing committee should also be mentioned here, including Adiwan Fahlan Aritenang, Tessa Talitha, Seruni Fauzia Lestari, Farida Khuril Maula, Niken Prilandita, Shanty Yulianty Rahmat, Bea Regina Marcendy, Puspita Dirghahayani, Hansen Sutanto, Saut A.H. Sagala, Nurrohman Wijaya, Sri Utami Purwaningati, Azis Hakim, Bagas Dwipantara Putra, Tri Rahayu Wulansari, Alhilal Furqan, Aliyah Alfianada Dwicahyani, Yunie Nurhayati Rahmat, Rama Arianto, Achmad Fauzan Iscahyono, Tizar Bijaksana, Tika Savitri Hasan, Alvaryan Maulana, Qurrota Aini, Alvin Noviansyah, Dewi Widaningsih, Susi Agustini, Jaja Suhendar. We are also grateful to our colleagues in the Scientific Committee, whose inputs and ideas are remarkable: Tommy Firman, Eugnie Birch, Richard Haigh, Eric Sheppard, Deden Rukmana, Haryo Winarso, Pradono, Tetti Armiati Argo, Tim Bunnell, Paul Jones, Shabbir Cheema, Terry van Dijk, Sri Maryati, Hastu Prabatmodjo, Harkunti P. Rahayu, Denny Zulkaidi, and Wilmr Salim. We are indebted to our Steering Committee for their kind supports and encouragement: Miming Miharja, Benedictus Kombaitan, Robert Cervero, Richard Legates, Johan Woltjer, Roos Akbar, Arief Rosyidie, Tubagus F. Sofhani, Ibnu Syabri, and Ridwan Sutriadi.
Finally, we are thankful and lucky to have dedicated partners from College of Architecture and Urban Planning, Tongji University, China, including Peng Zhenwei, Zhao Min, Li Zhang, and Chen Chen.

Dr. Delik Hudalah
Chair of the Organizing Committee
The 1st ITB Centennial and 4th PlanoCosmo International Conference
Editorial team

Proceedings of the 1st ITB Centennial and 4th PlanoCosmo International Conference on Infrastructure Development:
“Transforming beyond Borders, Starting the New Urban Agenda”

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Welcoming remarks

Chair of the ITB Centennial Commemoration Committee

Dear Colleagues,

Welcome to the very first opening of the series of events leading up to the Centennial Commemoration of Higher Education in Engineering in Indonesia!

Institut Teknologi Bandung (ITB) was formerly established as Sekolah Tinggi Teknik (Technische Hoogeschool, TH) in Bandung, 1920, and became the first higher education in engineering in Indonesia. For almost 100 years ITB has been leading up to the establishment of many higher education institutions in engineering, strategic industries, and research centers in Indonesia and have contributed to the creation and innovation of science and technology that aims to further develop Indonesia.

This centennial commemoration of ITB as Higher Education Engineering in Indonesia is a remarkable moment to uphold the spirit to be united by one sole mission of advancing Indonesia’s science and technology and spur innovation for the betterment of our nation. Therefore, by acknowledging the success of previous three series of PlanoCosmo, without any doubt we are pleased to collaborate with the 4th PlanoCosmo to pioneer other events towards the centennial commemoration and provide inspiration for scholars, practitioners, and general public to become useful and contributive individuals towards urban and infrastructure development in Indonesia in the future.

The 1st ITB Centennial and the 4th PlanoCosmo focuses on the role of infrastructure development in implementing the goals of the New Urban Agenda. Though this event, we hope that scholars, policy makers, and innovators can communicate to cultivate new ideas, technologies, and policies concerning infrastructure development for more sustainable cities. And aside from the main conference agenda, we proudly present a magnificent exhibition from education institution, cities to national government agencies, private sectors, and association of related groups, to exhibit their innovation in development toward the implementation of the New Urban Agenda.

Prof. B. Kombaitan
Chair of the ITB Centennial Commemoration Committee
Welcoming remarks

Dean of the School of Architecture, Planning and Policy Development
Institut Teknologi Bandung

Dear Colleagues,

I am very delighted to welcome you all to the 1st ITB Centennial and 4th Planocosmo International Conference on Infrastructure Development in the stunning city of Bandung.

The series of Planocosmo International Conference has been a pride of SAPPD ITB to trigger a significant contribution to creating and disseminating scientific knowledge in planning, design and policy development of sustainable environment. The conference also greatly contributes to actualizing the vision of SAPPD ITB to be a leading, reputable and respectable educational and research institution in Asia and recognizable worldwide, in the fields of planning, design and policy development of human settlements and sustainable environment. With the main theme related to the New Urban Agenda, we mark this conference as a historic moment for SAPPD in pioneering global discussion platform towards the centennial commemoration of ITB.

I am honoured to say that in this year’s conference agenda we have delegates from 15 countries around the world. We will have over 150 presentations scheduled for this year conference in Bandung, as from the 2nd-4th of April 2018.

I would like to thank the Organizing Committee for their dedication and passionate hard work for the whole year to prepare and host this promising conference. Not to be forgotten, I also would like to thanks Prof. Benedictus Kombaitan, the chair of P100, for giving an honourable yet a great opportunity to be featured as the very first opening of the series of events leading up to the Centennial Commemoration of Higher Education in Engineering in Indonesia.

Prof. Widjaja Martokusumo
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Overview of Conference Agenda

MONDAY
APRIL 2nd, 2018

08.00 – 09.00
Registration
Opening

10.00

10.15 - 10.30
Keynote Lecture 1:
The Role of (Local) Government in Establishing Sound (Local) Fiscal System to Enable Equal Redistribution of Urban Value

11.00 - 11.30
Keynote Speech 1:
Integration of Strategic Regional Development Strategies with the New Urban Agenda Targets

Keynote Speech 2:
The Role of International Financial Institution in Delivering Smart Urban Infrastructure Financing

12.00 - 12.10

13.10 - 14.30
- Plenary 1.1
  Conventional and Alternative Infrastructure Financing
- Meet 1
  JRCP Editorial Board Meeting

14.40

15.10 - 16.00
Plenary 1.2
Access to Financial Support for Infrastructure Projects

16.40

17.00
Dinner Preparation

18.30
Welcoming and Dinner Reception
TUESDAY
APRIL 3rd, 2018

09.00  Plenary 2
        Sustainable Regional Development

10.30

10.45

11.00  Plenary 3
        JRCGP Plenary on Inclusive Urbanism

12.30

12.45

13.45  • Parallel 1
        • Book Launch 1: Jakarta, Claiming Spaces & Rights in the City
        • Workshop 1: Open Publication

15.15

15.45  • Parallel 2
        • Book Launch 2: Teknopolis & Kota Komunikatif
        • Workshop 2: Investing Disaster Risk Reduction for Coastal Resilience (City)

18.30  Gala Dinner
WEDNESDAY
APRIL 4TH, 2018

09.00 - Opening

09.30 - Keynote Speech 3
National Urban Policy: Cities as Engine of Growth

10.00 - Coffee Break

10.15 - Keynote Lecture 2:
New Urban Agenda: Problems and Their Potential Solutions

10.30 - Meet 2:
Faculty Board Meeting of SAPPD ITB and CAUP Tongji University

11.30 - Lunch

11.45 - Parallel 3

12.45 - Workshop 3: Presentation of Studio’s Results by ITB and SU Students

14.15 - Coffee Break

14.45 - Parallel 4

14.45 - Poster Presentation

14.45 - Workshop 5: Smart City Innovation

14.45 - Workshop 6: Financing to Implement the New Urban Agenda

16.15 - JRCP Best Paper Award

16.45 - Wrap-up and Closing Ceremony
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Urban and Regional Planning Study Program
School of Architecture, Planning and Policy Development
and
Research Center for Infrastructure and Regional Development
Institut Teknologi Bandung

Co-organized by:

College of Architecture and Urban Planning
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