Future City Jakarta

Swiss and Indonesian Research and Technology in Practice

PROGRAMME

Symposium

3rd of November 2014, 09:00-17:00
(Exhibition launch 17:00-18:00)

Exhibition

3rd of November 2014 - 3rd of December 2014

Universitas Indonesia, Depok Campus
Auditorium Terapung, Central Library

CREATE
Campus for Research Excellence And Technological Enterprise

(SEC) SINGAPORE-ETH CENTRE 新加坡－ETH 研究中心

(FCL) FUTURE CITIES LABORATORY 未来城市实验室

UNIVERSITAS INDONESIA

JAYA RAYA

Schweizerische Eidgenossenschaft
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Embassy of Switzerland in Indonesia

Switzerland.

Future City Jakarta

Swiss and Indonesian Research and Technology in Practice

Foreword

Along with its fast economic growth, Indonesia has been rapidly urbanizing, and will continue to do so in the future. By 2030, it is projected that more than 80% of Indonesians will live in cities. The metropolitan city of Jakarta, the capital of Indonesia, is currently home to more than 10 million people. According to UN World Urbanization Prospects 2010 data, Indonesia has the largest share of urban population and the fastest rate of growth in urban areas in Asia.

Urbanization aggravates the challenges Jakarta is facing, including spatial planning, solid waste, land subsidence, water supply, waste water management, and housing. This symposium seeks to address some of those challenges, while highlighting Swiss and Indonesian research and technology that could provide solutions applicable to the metropolitan city of Jakarta.

ETH Zurich, one of the world's top universities in engineering and technology, is a fundamental partner in this symposium through their overseas Singapore ETH Center (SEC). We are very proud to share with you some of SEC's research that focuses on Indonesia. The University of Indonesia, one of Indonesia's top universities, has also been an important partner that made this collaboration possible.

In this symposium, we present to you speakers from a wide array of Swiss and Indonesian academics, industry, as well as the government. Eawag-Sandec is a leading research institute in Switzerland and Europe, with expertise in water treatment, sanitation planning, wastewater management, and solid waste management. Holcim Indonesia is a leading cement industry with strong commitment to environmental protection and sustainability.

On this occasion, we would also like to thank the Government of DKI Jakarta for their significant support. With their collaboration, we can make this event a platform of knowledge exchange between Swiss and Indonesian researchers. It is our hope that this symposium could serve to bring feasible solutions into practice, and at the same time strengthen the relationship of Switzerland and Indonesia.

Dr. Yvonne Baumann
Ambassador of Switzerland to the Republic of Indonesia

Kota Sambutan

Seiring dengan pertumbuhan ekonomi yang pesat, Indonesia mengalami peningkatan arus urbanisasi yang signifikan. Berbagai penelitian memproyeksikan lebih dari 80% masyarakat Indonesia akan tinggal di perkotaan pada tahun 2030. Ibu kota Jakarta adalah kota metropolitan yang saat ini dihuni oleh lebih dari 10 juta penduduk. Menurut data UN World Urbanization Prospects tahun 2010, Indonesia memiliki pertumbuhan populasi dan perkotaan tercepat dibandingkan kota-kota lain di Asia.

Tingkat urbanisasi yang tinggi memperburuk berbagai permasalahan yang dihadapi Jakarta, seperti isu tata ruang, limbah padat, penurunan permukaan tanah, persediaan air bersih, serta perumahan. Seminar ini bertujuan untuk mengajukan solusi yang dapat menjawab sebagian dari permasalahan tersebut, menggunakan teknologi Swiss dan Indonesia yang dapat menawarkan solusi untuk kota Jakarta.

ETH Zurich, salah satu universitas terbaik di dunia dalam bidang riset dan teknologi, adalah rekan utama kami dalam seminar ini melalui perwakilannya di Singapura. Kami sangat senang dapat memperkenalkan beberapa riset yang telah dirampungkan Singapore-ETH Center, dengan Indonesia sebagai fokusnya. Universitas Indonesia, sebagai salah satu universitas terbaik di Indonesia, juga menjadi rekan penting dalam peyelenggaraan seminar ini.

Pada kesempatan ini, kami juga mengundang para akademisi, perwakilan industri serta pemerintah Indonesia untuk memperkenalkan solusi-solusi dari dua negara, Swiss dan Indonesia. Eawag-Sandec adalah lembaga riset terkemuka di Swiss dan Eropa, ahli di bidang sanitasi dan pengolahan air bersih, limbah dan sampah. Sementara itu, Holcim Indonesia mewakili industri semen terkemuka yang memiliki komitmen terhadap perlindungan lingkungan.

Terima kasih kami ucapkan kepada pemerintah DKI Jakarta atas dukungannya. Berkat kerjasamanya, seminar ini dapat menjadi wadah pertukaran pengetahuan antara para peneliti Swiss dan Indonesia. Harapan kami seminar ini dapat mewujudkan solusi praktis bagi permasalahan kota Jakarta, dan memperkuat hubungan antara kedua negara, Swiss dan Indonesia.

Dr. Yvonne Baumann
Duta Besar Swiss untuk Republik Indonesia

Future City Jakarta

The 21st century has seen the growth of cities that is unprecedented in human history. Today's cities accommodate the largest proportion of the world's population, consume disproportionately more resources than ever before, and have ecological footprints that increasingly impact the natural regions of the world. Allied with predictions of further growth of the world's population by century's end, it is with some justification that many claim we are in the midst of a planetary urbanisation.

The growth of Jakarta mirrors many of the macro-trends of this planetary process. This Symposium and Exhibition programme brings together a set of research projects and practical proposals that approaches the global challenges of urbanisation in terms of Jakarta's own development.

As the title of the event suggests, we are interested in the kinds of urban development, planning approaches, and urban technologies that will be necessary to ensure a sustainable, equitable and liveable future Jakarta. To that end, we showcase recent collaborative research between Indonesia and Switzerland on the management and strategies for the rehabilitation of rivers in the city; on technologies for water treatment and waste management; and on approaches to the planning and design of new kinds of sustainable *kampungs* and resilient urban quarters.

The programme is designed to inform on recent research advances in these fields, and to offer a platform for discussion and debate on contemporary challenges of urbanisation in Jakarta.

The Programme Committee

Kota Masa Depan Jakarta

Di abad ke-21 ini, kita menyaksikan pertumbuhan perkotaan terpesat sepanjang sejarah umat manusia. Saat ini sebagian besar populasi dunia tinggal di wilayah perkotaan, dan menggunakan jauh lebih banyak sumber daya alam daripada sebelumnya, dan juga meninggalkan jejak ekologi yang berdampak besar terhadap wilayah alam dunia. Seiring dengan prediksi tentang pertumbuhan populasi dunia yang akan terus berlangsung, tidak salah apabila banyak pihak mengatakan bahwa kita sedang mengalami urbanisasi planet.

Pertumbuhan Kota Jakarta mencerminkan banyak aspek yang termasuk dalam proses makro urbanisasi planet. Program Simposium dan Pameran ini memadukan serangkaian proyek penelitian dan proposal praktis yang menyajikan solusi dalam menghadapi tantangan urbanisasi yang dialami Jakarta.

Judul acara ini mengangkat tema Jakarta sebagai kota masa depan, sesuai dengan fokus kami untuk mengangkat isu-isu perkembangan perkotaan, perencanaan perkotaan, dan teknologi perkotaan yang penting untuk membangun kota Jakarta yang berkelanjutan, berkeadilan, serta layak huni. Untuk itu, kami akan mempresentasikan hasil kerjasama penelitian antara Indonesia dan Swiss mengenai pengelolaan dan strategi rehabilitasi sungai di Jakarta; mengenai teknologi pengelolaan air dan limbah; serta berbagai pendekatan perencanaan dan perancangan wilayah kampung dan kawasan perkotaan yang berkelanjutan.

Susunan program ini dirancang untuk memperkenalkan kemajuan terkini dalam penelitian di bidang ini, serta untuk menyediakan suatu wadah diskusi mengenai tantangan terbaru yang dihadapi dalam urbanisasi kota Jakarta.

Komite Penyelenggara

Symposium

3rd of November

Symposium Programme
3rd of November 2014

08:30-09:00	Registration	

Welcome address & Keynote Speech

09:00-09:10	Welcome remarks by Ambassador of Switzerland	**H.E. Dr Yvonne Baumann** Ambassador of Switzerland to the Republic of Indonesia
09:10-09:15	Welcome by Universitas Indonesia	**Prof. Dr Bambang Wibawarta** Acting Rector Universitas Indonesia
09:15-09:20	Introduction	**Dr Remo Burkhard** Managing Director, Singapore-ETH Centre
09:20-09:40	Keynote speech	**Ir. Sarwo Handayani, M.Si** Former Deputy Governor for Spatial Planning and Environment of DKI Jakarta
09:40-09:50	Discussion	
09:50-10:00	Photo session	
10:10-10:30	Coffee break	

Symposium Programme
3rd of November 2014

Session one: Jakarta river management

10:30-10:40	Introduction	**Dr Rita Padawangi** Senior Research Fellow, Asia Research Institute, National University of Singapore
10:40-11:00	**Ciliwung Landscape Park** Alternative solutions to flood risk management, land use and long term development along the Ciliwung river waterway from the landscape ecology perspective.	**Prof. Christophe Girot** Principal Investigator, Future Cities Laboratory, Singapore-ETH Centre
11:00-11:20	**Flood control programs in Ciliwung Cisadane** The presentation will highlight the process of planning and implementation status of flood control program in Ciliwung River, engaging cross-sectoral parties.	**Ir. Achmad Zubaidi, M. Tech** Director of Planning and Program, Balai Besar Wlayah Sungai Ciliwung Cisadane
11:20-11:40	**Community Movement to Clean Ciliwung River**	**Een Irawan Putra** Komunitas Peduli Ciliwung
11:40-12:00	Discussion	
12:00-12:50	Lunch	

Symposium Programme
3rd of November 2014

Session two: Swiss Research and Technology for Indonesia

12:50-13:00	Introduction	**Daniel Derzic** Deputy Head of Mission, Embassy of Switzerland in Indonesia
13:00-13:20	**Swiss Technology and Research on Drinking Water and Wastewater Treatment** An overview of current technology developments in Switzerland on drinking water treatment as well as wastewater and faecal sludge treatment for urban areas of low and middle-income countries.	**Dr Christian Zurbrügg** Director, EAWAG SANDEC (Department of Water Sanitation in Developing Countries, Swiss Federal Institute of Aquatic Science and Technology)
13:20-13:40	**Challenges and Solutions for Landfill Avoidance and Energy Generation.** Holcim's experience and strategies for processing of municipal waste will be presented with focus on bio-drying, utilizing the high organic content as the driver for moisture reduction and increasing fuel value.	**Ib Larsen** Regional MSW Manager, Holcim Indonesia
13:40-13:50	**Valorisation of Organic Solid Waste - Opportunities & Challenges** Opportunities and main operational challenges of using insect larvae as biological engineers to produce products with economic value.	**Bart Verstappen** EAWAG SANDEC (Department of Water Sanitation in Developing Countries, Swiss Federal Institute of Aquatic Science and Technology)
13:50-14:10	**Making Swiss Technology Global**	**Christian Häuselmann** Chairman, GCCA (Global Cleantech Cluster Association) Co-founder, swisscleantech
14:10-14:30	Discussion	**Dr Gabriel Andari Kristanto** Centre for Sustainable Infrastructure Development (CSID) Faculty of Engineering, Universitas Indonesia
14:30-14:50	Coffee break	

Symposium Programme
3rd of November 2014

Session three: Jakarta geology and hydrology for sustainable kampong

14:50-15:00	Introduction	**Dr Komara Djaja** Head of Urban Studies Program, Graduate School, Universitas Indonesia
15:00-15:20	Ongoing Settlement Project by DKI Jakarta	**Representative of DKI Jakarta government***
15:20-15:40	**On Muara Baru: What Matters Most** An urban assemblage analysis that studied the crucial role of a kampung in Jakarta including their social capital, networks and pivotal role for Jakarta	**Herlily** Faculty member, Department of Architecture, Universitas Indonesia
15:40-16:00	**Metabolism and the Sustainable City** Tropical Town: seeding sustainable settlements.	**Prof. Dr Stephen Cairns** Scientific Director, Future Cities Laboratory, Singapore-ETH Centre
16:00-16:20	Discussion	

Closing

16:30-16:40	Closing remarks	**Dr Remo Burkhard** Managing Director Singapore-ETH Centre
16:40-16:55	MOU signing between Future Cities Laboratory of Singapore-ETH Centre and Universitas Indonesia	
16:55-17:00	Close of Symposium	
17:00-18:00	Exhibition launch	

*to be confirmed

Speakers

H.E. Dr Yvonne Baumann

Yvonne Baumann is the Ambassador of Switzerland to the Republic of Indonesia, the Republic of Timor Leste (designate), and ASEAN (designate). Prior to her post in Indonesia, she was the Ambassador of Switzerland to the Republic of Chile and previously served as Director General for the Americas within the Political Directorate of the Swiss Federal Ministry of Foreign Affairs.

Dr Remo Burkhard

Remo Burkhard is Managing Director of the Singapore-ETH Centre since its founding. He is a serial entrepreneur and has worked a decade as a management and communication consultant. His education includes a master of architecture PhD thesis on Knowledge Visualization at the ETH.

Dr Rita Padawangi

Rita Padawangi is a Senior Researcher at Future Cities Laboratory. With research interests spanning across the sociology of architecture and participatory urban development, Rita has conducted various research projects particularly in Southeast Asia, including Indonesia, the Philippines, Singapore, Malaysia, and Myanmar.

Prof. Bambang Wibawarta

Prof Dr. Bambang Wibawarta, SS., MA is the Acting Rector for Universitas Indonesia. He has been the Vice Rector for Academic and Student Affairs and previously served as the Dean of Faculty of Humanities and Director of Japanese Study Program, Faculty of Humanities, Universitas Indonesia.

Ir. Sarwo Handayani, M.Si

Sarwo Handayani is the former Deputy Governor for Spatial Planning and Environment in DKI Jakarta provincial government. She is a career civil servant with a degree in architectural engineering from Bandung Institute of Technology and Magister of Administration from the University of Indonesia.

Prof. Christophe Girot

Christophe Girot is Principal Investigator at FCL here he leads a team researchers on a flood control project in the coastal metropolis of Jakarta. At the ETH he is Professor and Chair of Landscape Architecture at the Architecture Department. His professional practice focuses on large-scale landscape projects that contribute to the design of more sustainable landscape environments.

Speakers

Ir. Achmad Zubaidi, M. Tech

Achmad Zubaidi is Head of Program and Planning Division, Balai Besar Wilayah Sungai Ciliwung-Cisadane, under the Directorate General of Water Resources of the Ministry of Public Works. He holds Master's degree in Water Resources Development from the Indian Institute of Technology Roorkee.

Een Irawan Putra

Een Irawan Putra is currently director of the Indonesia Nature Film Society and coordinator for the Ciliwung River Care Community and head of TELAPAK West of Java Territorial Body. Formerly he was a Forest Researcher with Greenpeace South East Asia Indonesia Office.

Daniel Derzic

Daniel Derzic is Deputy Head of Mission of the Embassy of Switzerland in Indonesia. Previously, he served as Regional Coordinator for South East Asia and Pacific within the Political Directorate of the Swiss Federal Ministry of Foreign Affairs and was posted in Swiss Embassy in Thailand, covering Myanmar and Cambodia as well.

Dr Christian Zurbrügg

Christian Zurbrügg is senior researcher and leads the Department of Water and Sanitation at the Swiss Federal Research Institute of Aquatic Science and Technology. His research interests are directed towards urban environmental management in cities, with special focus on resource efficiency in sanitation and solid waste management.

Ib Larsen

Ib Larsen is the Regional Manager for Municipal Solid Waste (MSW) at Holcim Indonesia. He served as an advisor for the DKI Jakarta government on solid waste management. He has delivered papers on the subject in more than 30 countries, and published a number of books and articles

Bart Verstappen

Bart Verstappen holds an MSc in Bioscience Engineering from the University of Ghent. He joined Eawag-Sandec's organic waste management research group in 2013 and manages, on behalf of SECO, the project named "FORWARD". This project works to establish municipal bio-waste conversion operations in Indonesia.

Speakers

Gabriel Andari Kristanto, Ph.D

Gabriel Andari Kristanto has been a lecturer at the Department of Civil Engineering of University of Indonesia since 1993. She received her Ph.D in environmental toxicology from Texas Southern University. Dr. Kristanto has received numerous grants for her research on solid waste. She serves as a waste management consultant for several industries.

Dr Komara Djaja

Komara Djaja is Head of the Graduate Program in Urban Studies at the University of Indonesia, and Chairman of the Urban and Regional Research Center of the Graduate Program of Multidisciplinary Studies at Universitas Indonesia. He has been actively participating in advocating sustainable urban river in Jakarta, mainly Ciliwung.

Prof. Dr Stephen Cairns

Stephen Cairns, Scientific Director of FCL, was appointed Professor of Architecture and Urbanism in 2009. He served as Head of Department of Architecture, and Director of the newly founded Edinburgh School of Architecture and Landscape Architecture.

Christian Häuselmann

Christian Haeuselmann is the co-founder of the Global Cleantech Cluster Association (GCCA), driving collaboration among 20+ global Cleantech clusters. He is an innovation-driven Swiss economist and serial entrepreneur with 20 years of experience in the Cleantech sector, both with start-ups and global organisations.

Herlily

Herlily is a faculty member at Department of Architecture, Universitas Indonesia. She was trained in architecture, urban design and environmental design for developing countries. She also works in action-research mode on current projects in Jakarta.

Exhibition

3rd of November - 3rd of December 2014

Ciliwung Rehabilitation

by Future Cities Laboratory

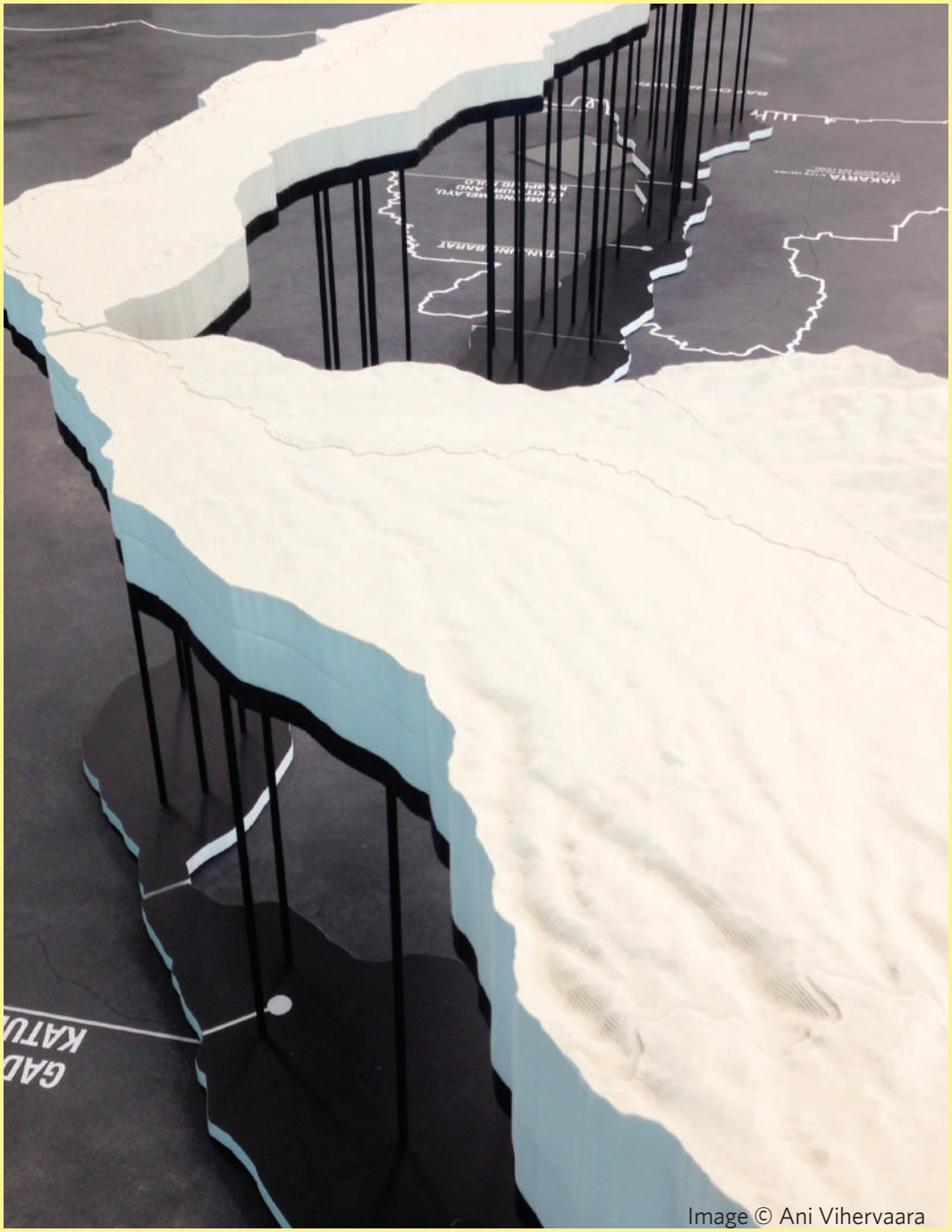

Image © Ani Vihervaara

Jakarta Study - Ciliwung Rehabilitation

The Ciliwung Rehabilitation project aims to present the possibility of a paradigm change in river rehabilitation and to provide a future vision that balances concerns over flooding, water quality, and ecology, with the realities of a rapidly-growing Southeast Asian city.

Researchers from the Future Cities Laboratory's Landscape Ecology Module approached the study area through a cross-section of spatial scales, taking into consideration not only the larger area of the river catchment and the city, but also the kampungs within the city and along the edges of the river.

The Ciliwung River is studied in its entirety (as represented in the three-dimensional terrain model exhibited) to generate solutions at the spatial scale of the river's catchment, corridor, and individual urban sites to capture the dynamics of the river and its surroundings.

The interdisciplinary team of researchers integrates diverse methods through an iterative approach strongly based on advanced remote sensing, landscape visualisation, mathematical modelling and scenario development.

Advanced 3D modelling is used to design and visualise proposed changes; while nested hydrologic, hydrodynamic and water quality models investigate the impacts of these changes. Finally, participatory planning and design methods involve residential communities in the shaping of their future environments.

The resultant interactive visualisation system enables the visualisation of the extent of flooding and could contribute to urban planning decisions.

Penelitian Jakarta - Rehabilitasi Ciliwung

Proyek rehabilitasi Ciliwung bertujuan menghadirkan kemungkinan perubahan paradigma dalam rehabilitasi sungai dan menyediakan visi masa depan yang menyeimbangkan kekhawatiran terkait banjir, kualitas air, dan ekologi, dengan kenyataan pertumbuhan kota Asia Tenggara yang pesat.

Para peneliti dari Landscape Ecology Module di Future Cities Laboratory melakukan pendekatan terhadap area penelitian melalui lintas bagian skala ruang, dengan mempertimbangkan tak hanya wilayah kota dan daerah aliran sungai yang besar, namun juga perkampungan di dalam kota dan sepanjang bantaran sungai.

Sungai Ciliwung diteliti secara menyeluruh (sebagaimana ditunjukkan pada model medan tiga dimensi yang dipamerkan) untuk menghasilkan solusi pada skala ruang daerah aliran sungai, koridor, dan lokasi perkotaan individual guna mengetahui dinamika sungai dan sekitarnya. Tim peneliti antardisiplin memadukan berbagai metode melalui pendekatan berulang yang berdasarkan pada deteksi jarak jauh tingkat lanjut, visualisasi lanskap, pemodelan matematika, dan pengembangan skenario.

Pemodelan 3D tingkat lanjut digunakan untuk merancang dan membuat visualisasi perubahan yang diajukan; sedangkan model kualitas air, hidrodinamik, dan hidrologi menyelidiki dampak perubahan ini. Terakhir, metode perencanaan dan rancangan partisipatif melibatkan komunitas penduduk dalam pembentukan lingkungan mereka di masa depan.

Sistem visualisasi interaktif yang dihasilkan memungkinkan dibuatnya visualisasi tingkat banjir dan dapat berkontribusi dalam keputusan perencanaan kota.

Tropical Town

by Future Cities Laboratory

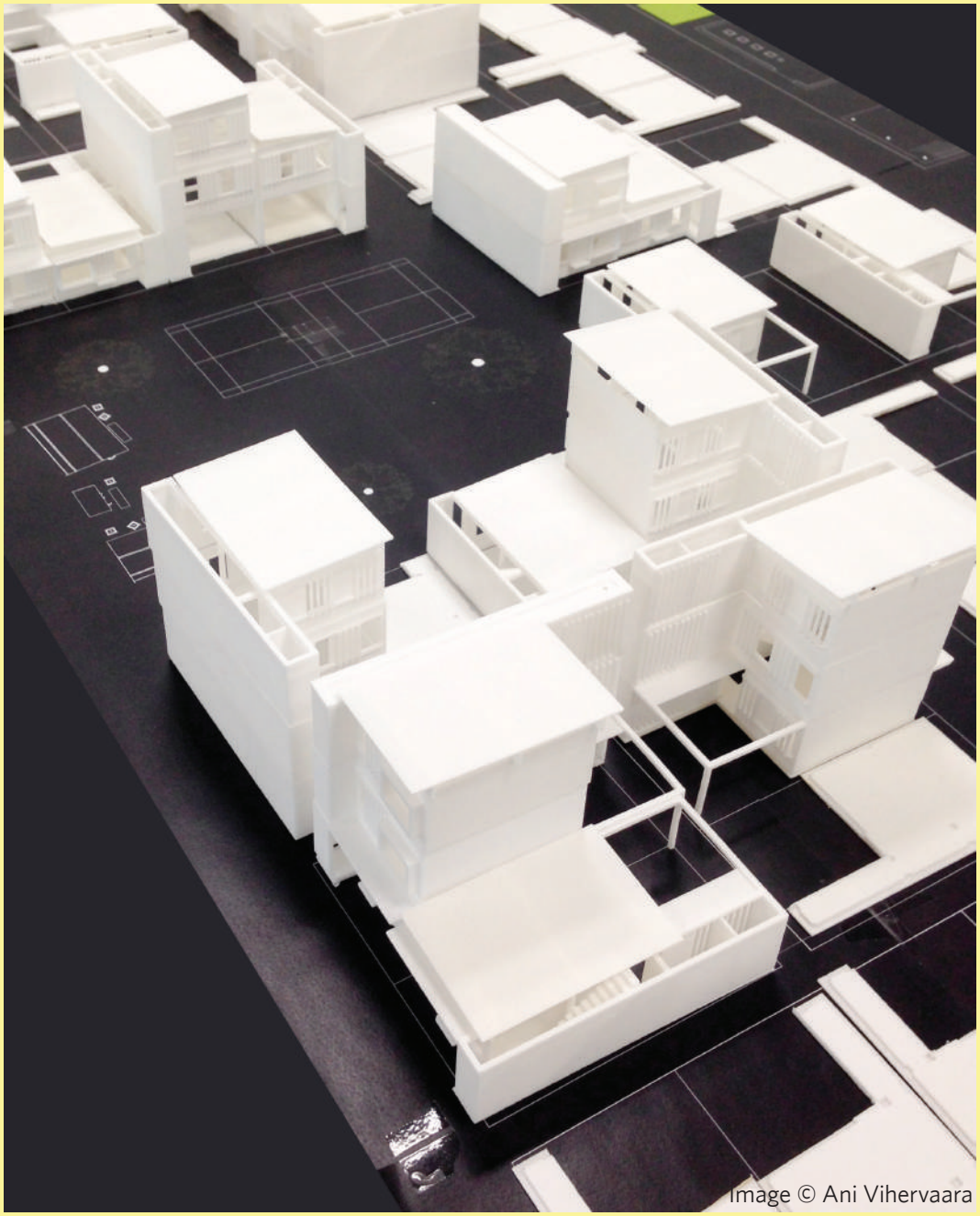

Image © Ani Vihervaara

Jakarta Study - Tropical Town

Tropical Town is an architectural and urban design proposal for the sustainable development of the vast peri-urban regions around Southeast Asian cities. The proposal engages the basic technical and socio-economic processes – the production and consumption of energy, water, wealth and waste – that underpin the growth and decay of cities.

The project acknowledges the mutable character of these processes in the shaping of settlement forms. As such, Tropical Town is not a master plan or design template. Rather, it is a 'seed package' containing technologies, planning guidelines and capacity-building techniques that is designed to productively interact with local social, cultural and environmental conditions. We anticipate that diverse Tropical Towns will grow from common seeds.

At the centre of this project is an incremental unit dubbed Rubah, or Rumah Tambah ('expandable house' in Bahasa Indonesia), which encourages vertical densification up to four floors at the nested neighbourhood, village and township scales. The wider planning strategies embed public space, productive landscapes, and wastewater treatment, solar energy generation and rainwater harvesting infrastructures.

The team at the Future Cities Laboratory is planning to trial the Tropical Town project at two distinctive sites in Indonesia: a peri-urban site in the city of Batam in the Riau Archipelago and in West Jakarta.

Penelitian Jakarta - *Tropical Town*

Tropical Town adalah proposal rancangan kota dan arsitektur untuk perkembangan wilayah luas sekitar perkotaan yang berkelanjutan di kota-kota Asia Tenggara. Proposal ini melibatkan proses sosial ekonomi dan teknis dasar – produksi dan konsumsi energi, air, kekayaan, dan limbah – yang mendorong pertumbuhan dan kehancuran perkotaan.

Proyek ini mengenali adanya karakter tak tetap dari proses ini dalam pembentukan pemukiman. Maka dari itu, Kota Tropis bukanlah template rancangan atau rencana induk. Ini adalah 'paket benih' yang berisi teknologi, pedoman perencanaan, dan teknik pengembangan kemampuan yang dirancang untuk berinteraksi dengan kondisi lingkungan, budaya, dan sosial secara produktif. Kami mengantisipasi tumbuhnya berbagai Kota Tropis dari benih biasa.

Proyek ini berpusat pada unit tambahan bernama Rubah, (Rumah Tambah), yang mendorong pemadatan vertikal hingga empat lantai dalam skala lingkungan, desa, dan kota. Strategi perencanaan yang lebih luas menyertakan infrastruktur ruang publik, lanskap produktif, pengolahan air limbah, produksi energi matahari, dan penadahan air hujan.

Tim di *Future Cities Laboratory* berencana menguji coba proyek Kota Tropis di dua lokasi berbeda di Indonesia: lokasi sekitar perkotaan di kota Batam, Kepulauan Riau dan di Jakarta Barat.

Domestic Space Project
Semper Barat, North Jakarta
by Universitas Indonesia

Domestic Space Project

A small intervention programme in the Semper Barat neighborhood in North Jakarta is a model that integrates research, programming and design, community-based spatial intervention and community education as interrelated components. The programme began with a thorough inquiry to map various health-related issues within the spatial context. The mapping process revealed various spatial strategies employed by the residents in accommodating their complex domestic needs within limited space.

At the same time, a workshop was held for the residents to explore various health-related issues in their dwelling space, thus educating them to become aware of the relationship between various elements involved in their domestic service activities.

Based on the team's inquiry on the existing spatial strategies and the outcomes of the education workshop, a spatial intervention programme was developed for the service space. The programme comprises two main components: the renovation of gutter in front of the dwelling units to allow for better flow of waste water, and the construction of new sinks to enable the residents to better conduct food handling and dish-washing with other washing activities in hygienic conditions. These two intervention components, although very simple, would accommodate the residents' needs for service activities with improved hygiene.

More details: http://domesticspaceproject.wordpress.com

Team: Yandi Andri Yatmo (UI), Paramita Atmodiwirdjo (UI).
Location: Semper Barat, North Jakarta.

Ruang Domestik

Program intervensi spasial di sebuah permukiman di Semper Barat, Jakarta Utara merupakan sebuah model yang mengintegrasikan riset, pemrograman dan desain, intervensi spasial berbasis komunitas dan pendidikan komunitas sebagai komponen-komponen yang saling mendukung. Program ini diawali dengan riset mendalam untuk memetakan berbagai isu terkait kesehatan dalam konteks spasial permukiman. Proses pemetaan ini mengungkap berbagai strategi spasial yang dikembangkan oleh para penghuni untuk memenuhi kebutuhan domestik mereka dalam ruang yang terbatas. Sejalan dengan riset, dilakukan pula workshop pendidikan di mana para penghuni menggali berbagai isu terkait kesehatan di ruang hidup mereka, sehingga workshop ini menjadi media edukasi untuk memberikan kesadaran mengenai keterkaitan antara elemen di dalam aktivitas servis domestik mereka. Hasil riset dan luaran dari workshop menjadi dasar pengembangan program intervensi spasial untuk ruang servis di permukiman ini. Program ini terdiri dari dua komponen utama: perbaikan comberan di depan unit hunian sehingga air buangan rumah tangga dapat mengalir dengan baik, serta pembuatan bak cuci tempat para penghuni dapat melaksanakan berbagai aktivitas servis domestik dengan lebih baik. Kedua komponen intervensi tersebut, meskipun terlihat sederhana namun memberi kesempatan pada para penghuni untuk memenuhi kebutuhan kegiatan servis domestik mereka secara lebih sehat.

http://domesticspaceproject.wordpress.com

Tim: Yandi Andri Yatmo & Paramita Atmodiwirdjo (UI).
Lokasi: Semper Barat, Jakarta Utara

Alternative Helicopter: Ayun-Ayun Kaliku

by Universitas Indonesia and Chiba University

Image ©Evawani Ellisa

Alternative Helicopter

A small river called Kali Keroncong, a side stream of Sungai Ciliwung, runs through a highly populated neighbourhood of Kampung Cikini-Ampiun runs. One of the reasons for the river's pollution are self-made public toilets, the so-called "WC Helicopter" located directly on more than 10 bridges across the stream, which waste goes directly into the stream.

Fourteen architecture students and 3 faculty members worked in Kampung Cikini-Ampiun for a week and developed design proposals for strategic architectural installation of a swing, an Alternative Helicopter: Ayun Ayun Kaliku. The swing is a statement and integrated response to the community's threats and wishes in terms of water quality and garbage collection. It symbolises participative urban intervention in a neighbourhood, threatened by redevelopment, rapid growth, and social divide. Furthermore, the swing creates a close proximity to the stream and invites residents to reflect about the river conditions and how to improve them.

As a long-term vision, the installation is aimed to function as a trigger for the community to turn the river into a place for relaxation and a playground for children, far beyond the existence of the swing installed as students' project. That transformation would require the resident's participation, solidarity and a certain public spirit.

Team:
Evawani Ellisa (Universitas Indonesia); Okabe Akiko (Chiba University); 8 Students of Universitas Indonesia and 6 students of Chiba University.
Location: Kampung Cikini, RT 05/RW01, Kelurahan Pegangsaan Jakarta Pusat

Ayun-Ayun Kaliku

Melalui kampung padat penduduk Cikini-Ampiun mengalir kali kecil bernama Kali Keroncong, yang merupakan cabang Sungai Ciliwung. Salah satu penyebab pencemaran kali tersebut ada kakus umum, dikenal sebagai "WC Helicopter" yang dibangun warga di atas lebih dari 10 jembatan yang melintasi kali tersebut dan limbah tinjanya langsung dibuang ke kali.

14 mahasiswa arsitektur dan 3 dosen bekerja sama selama seninggu di Kampung Cikini Ampiun dan membangun proposal perancangan untuk instalasi arsitektur strategis, Alternatif Helikopter: Ayun-Ayun Kaliku. Ayunan tersebut menjadi sebuah pernyataan dan respon terpadu atas ancaman terhadap komunitas dan harapan akan perbaikan kualitas air dan pengumpulan sampah. Ayunan menyimbolkan intervensi urban partisipatoris dalam sebuah lingkungan permukiman padat yang terancam pembangunan di sekitarnya, pertumbuhan cepat dan perpecahan sosial. Ayunan menciptakan kedekatan kepada kali dan mengundang warga untuk merefleksikan kondisi sungainya dan bagaimana memperbaiki kondisinya.

Sebagai visi jangka panjang, instalasi ini akan berfungsi sebagai pemicu bagi komunitas untuk mengubah kali menjadi tempat bersantai dan tempat bermain anak-anak, jauh dari sekedar keberadaan ayunan yang dirakit sebagai proyek mahasiswa. Transformasi tersebut membutuhkan partisipasi warga, solidaritas dan spirit.

Tim:
Evawani Ellisa (Universitas Indonesia); Okabe Akiko (Chiba University); 8 Students of Universitas Indonesia and 6 students of Chiba University.
Location: Kampung Cikini, RT 05/RW01, Kelurahan Pegangsaan Jakarta Pusat

What Matter Most: An Urban Assemblage Analysis

by Universitas Indonesia, Hong Kong University and University of Michigan

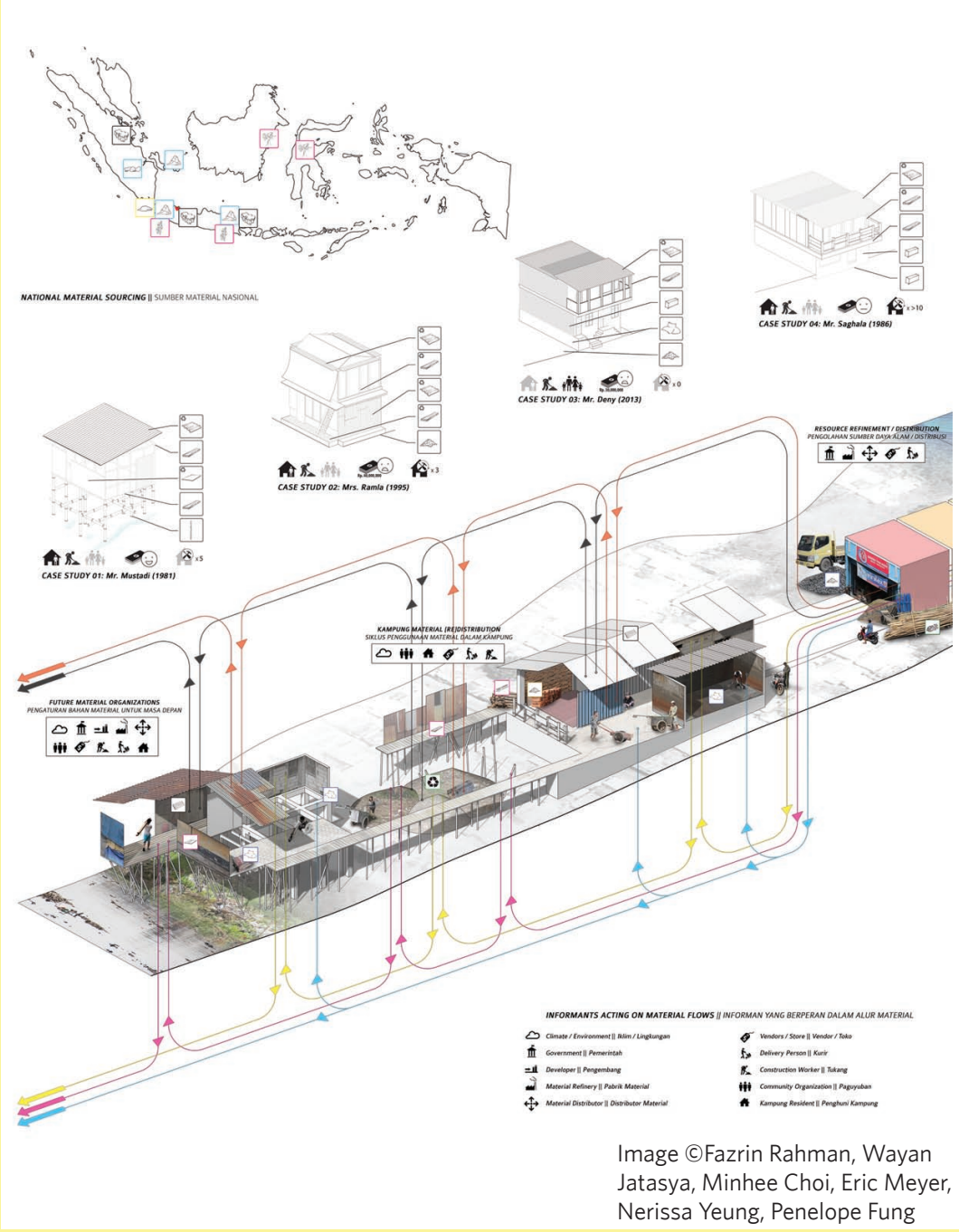

Image ©Fazrin Rahman, Wayan Jatasya, Minhee Choi, Eric Meyer, Nerissa Yeung, Penelope Fung

What Matter Most: An Urban Assemblage Analysis

Architecture + Adaptation: Design for Hypercomplexity is a collaborative three- year research initiative by faculty and students from Universitas Indonesia's Department of Architecture, the University of Michigan's Taubman College of Architecture and Urban Planning and the University of Hong Kong's Faculty of Architecture. The project studies the compound effects of coastal and river inundation, extreme pollution, intense urbanisation and water scarcity in Southeast Asian megacities.

In the second course of the project, a team of over 30 students and 5 faculty members from three countries the crucial role of Kampung Muara Baru in Jakarta and gained important knowledge about the pivotal role of Muara Baru in the economy of Jakarta Utara and the support its residents provide to the city.

During a three-week intensive study, the team investigated the kampung, its environment, infrastructure and residents which includes: Material Flows, Waste Streams, Food Networks, Flood Mitigation, Electrical Services and Water Distribution. Relocation/re-arrangement plan of the existing kampung to a new vertical kampung should value their social capital, networks, and crucial/pivotal role for Jakarta as it shown in this research.

The Exhibit shows the important networks of Material Flows, Waste Streams, Food Networks, Flood Mitigation, Electrical Services and Water Distribution.

Team:
Herlily (UI), Joko Adianto (UI), Adam Bobbette (HKU), Etienne Turpin (UMich), Meredith Miller (UMich), 30 students from Universitas Indonesia, HKU, UMich.
Location: Muara Baru, North Jakarta.

What Matter Most: An Urban Assemblage Analysis

Arsitektur + Adaptasi: Perancangan untuk hipercompleksitas adalah riset kolaborasi 3 tahun yang digagas oleh dosen dan mahasiswa dari Departement Arsitektur UI, Universitas Michigan, USA dan Universitas Hong Kong, mempelajari antara lain dampak ganda dari genangan dari air pasang pesisir dan genangan dari sungai, polusi udara ekstrem, urbanisasi intensif dan kekurangan air di Megacity Asia Tenggara.

Pada tahap ke dua riset ini, kami mempelajari peran penting dari Kampung Muara Baru di Jakarta. Dengan tim yang terdiri dari 30 mahasiswa dan 5 dosen dari 3 negara, kami memperoleh pengetahuan penting mengenai peran sentral dari Kampung Muara Baru pada ekonomi di wilayah Jakarta Utara dan dukungan yang diberikan penduduknya kepada kota Jakarta. Selama 3 minggu studi intensif, tim kami menginvestigasi kampung tersebut, lingkungan, infrastruktur dan penduduknya yang meliputi: Alur Material, Aliran Limbah, Jaringan Makanan, Mitigasi Banjir, Layanan Listrik dan Distribusi Air Bersih. Relokasi dan rencana pengaturan kembali kampung ini ke dalam rumah susun harus menghargai modal sosial, jaringan dan peran penting mereka untuk kota Jakarta seperti yang ditunjukkan penelitian ini.

The Exhibit menunjukkan jaringan penting dari Aliran Material (material flow) , Sampah (Waste Stream), jaringan makanan (Food network), mitigasi banjir (flood mitigation), (electricity service) servis listrik dan Water Distribution) distribusi air bersih di kampung muara baru.

Tim:
Herlily (UI), Joko Adianto (UI), Adam Bobbette (HKU), Etienne Turpin (UMich), Meredith Miller (UMich), 30 mahasiswa Universitas Indonesia, HKU, UMich. Lokasi: Muara Baru, Jakarta Utara

The Humane Vertical-Kampung

by Ciliwung Merdeka

The Humane Vertical-Kampung

The “humane vertical-kampung” by Ciliwung Merdeka is a design-research which acknowledges the need to widen the river, but through participatory processes of socio-economic environments of the two kampungs, and the connection between the kampung and Jakarta.

Activating the landscape’s natural absorbency; enhancing already existing community resilience in the face of flooding, combined with piloting a positive relationship with the river helps realise the capacity of the interface of the riverbank to help mitigate the impacts of flooding at the local scale.

If supported, and coordinated along the river, such a model of community participation and site-specific upgrading could be applied to other settlements along the river, and as a series, become a more equitable alternative to ‘normalisation’, with far less irreversible social and environmental losses.

Ciliwung Merdeka is an NGO working to create more equitable housing solutions for the people living in the kampung of Bukit Duri and Kampung Pulo in East and South Jakarta, 2 kampung subject to eviction due to the ‘normalisation’ of Sungai Ciliwung. On 2nd October 2014, Ciliwung Merdeka Community received a Habitat Award from Indonesian Minister of Public Work for their dedication to promote Sustainable Settlement - Category Enablement of Local Community.

Kampung Susun Humanis

Penelitian-perancangan “Kampung Susun Humanis” oleh Ciliwung Merdeka mengakui dan menghargai adanya kebutuhan pelebaran badan Sungai Ciliwung, tetapi melalui proses partisipasi sosial-ekonomi Kampung Bukit Duri dan Kampung Pulo, serta memperhitungkan hubungan sosial-ekonomi kampung-kampung tersebut dengan kota Jakarta.

Dengan mengaktifkan sifat permeabilitas alamiah dari lansekap tepian sungai; memperkuat ketahanan yang telah dimiliki komunitas dalam menghadapi banjir serta dikombinasi dengan merintis hubungan positif masyarakat dengan sungai, akan memberi kesadaran pentingnya peranan antar-muka tepi sungai dalam membantu mengurangi atau meringankan pengaruh banjir dalam skala lokal.

Jika usulan ini didukung and dikoordinasi dengan komunitas-komunitas sepanjang sungai, model partisipasi komunitas dan ‘site-specific upgrading’ dapat diterapkan pada permukiman lain yang berlokasi di pinggir sungai, dan sebagai satu rangkaian terpadu dapat menjadi sebuah pilihan yang adil pada normalisasi sungai dengan jauh lebih sedikit kerugian sosial-ekonomi.

Ciliwung Merdeka adalah Lembaga Swadaya Masyarakat yang mendedikasikan kegiatannya untuk menggali dan menghasilkan solusi perumahan yang adil bagi masyarakat yang tinggal di Kampung Bukit Duri dan Kampung Pulo di Jakarta Timur & Jakarta Selatan, 2 kampung yang akan terkena penggusuran akibat ‘normalisasi’ Sungai Ciliwung. Pada 2 Oktober 2014, Ciliwung Merdeka menerima Penghargaan Habitat dari Menteri Pekerjaan Umum RI untuk dedikasinya sebagai Penggiat Permukiman Berkelanjutan kategori Pemberdayaan Komunitas Lokal.

Notes

Hosts & Presenters

Future Cities Laboratory

FCL) FUTURE CITIES LABORATORY 未来城市实验室

The Future Cities Laboratory (FCL) is the first research programme of the Singapore-ETH Centre for Global Environmental Sustainability (SEC) - a collaboration between ETH Zurich and the National Research Foundation of Singapore. FCL is a transdisciplinary research programme focused on sustainable urbanisation on different scales in a global perspective, laying the foundation for a new form of urban studies programme.

Embassy of Switzerland in Indonesia

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Embassy of Switzerland in Indonesia

As the official representation of Switzerland, the embassy covers all matters concerning diplomatic relations between the two countries. It represents Swiss interests in the areas of political, economic and financial affairs, legal arrangements, science, education and culture. The commercial section of the embassy is also a network partner of Switzerland Global Enterprise, the Swiss trade and investment promotion agency.

Universitas Indonesia

UNIVERSITAS INDONESIA
Veritas, Probitas, Iustitia | Est. 1849

Founded in 1849, Universitas Indonesia is currently home for 44,716 students and comprises of 13 faculties; one interdisciplinary graduate school and one vocational school. As the best public university in the country and considered one of the leading universities in Asia, Universitas Indonesia has continually increased its capacity building in realizing, institutionalizing and embodying varied international dimensions of research, teaching, learning and community engagement activities of the university's students and faculty to give significant contributions to the nation and to the world.

DKI Jakarta

JAYA RAYA

DKI Jakarta consists of five city administrative areas and one district administrative area. DKI Jakarta plays multiple roles in Indonesia: as the capital and center of government administration, center of economic activities and trade, center of banking and financial activities, and as a gateway for international visitors. With this background, the development of DKI Jakarta preserves a huge potential, as well as big challenges and complex problems in comparison to other provinces in Indonesia. Currently, infrastructure development and spatial planning is an important focus of DKI Jakarta Government.

Special thanks to our presenters:

Holcim

GCCA GLOBAL CLEANTECH CLUSTER ASSOCIATION

CILIWUNG COMMUNITY