

#### 13<sup>th</sup> INTERNATIONAL CONGRESS OF ASIAN PLANNING SCHOOLS ASSOCIATION – APSA 2015

# Towards an Asian Urban Agenda:

Planning Asian *Diverse*City, IntenseCity, ComplexCity, and AuthenticCity



#### 12 – 14 August 2015

Department of Urban and Regional Planning Faculty of Built Environment Universiti Teknologi Malaysia



# CONTENTS

Introduction	2
Foreword Universiti Teknologi Malaysia Vice Chancellor	3
Foreword Congress Chairman	4
Programme	5
Congress Location	6
Tracks and Topics	10
Keynote Speakers	12
Parallel Sessions Schedule and List of Papers	15
Abstracts	
Keynote Speakers	39
Track 1: Urban Planning and Design Challenges (PD)	41
Track 2: Urban Institutions and Governance (IG)	84
Track 3: Bridging Urban Research and Urban Policy (RP)	122
Track 4: Soul-searching Planning Education (PE)	156
Track 5: Green Growth – The New Prosperity (GG)	166
Track 6: Urban Equity and Authenticity (EA)	193
Posters	244
Guidelines for Presentation	272
Schedule of Post-Congress Visits	273
Organising Committee	277
Important Contacts	278

#### INTRODUCTION

#### Towards an Asian Urban Agenda: Planning Asian DiverseCity, IntenseCity, ComplexCity and AuthenticCity

The 21st Century is frequently associated with the phenomenal rise of Asia and emergence of an urban world. As we approach the critical threshold of year 2020 and at a time the world is faced with numerous economic, social and environmental uncertainties, an intellectual and in-depth discourse on an Asian Urban Agenda is imperative and highly timely.

Urbanisation is at its most rapid in Asia; the process is yet to see any sign of levelling out. The ADB (2008, in UNU-IAS, 2013) projects that Asia will see an additional 1 billion urban residents in the next 25 years. The bulk of increase is expected to take place in the less and least developed cities. Taken as a whole, the Asian continent is a continent of great diversity and disparity that poses immense and highly varied, and complex challenges to urban scholars, planners and policymakers in the planning of more sustainable and liveable Asian cities. As diverse Asian civilisations develop and progress, Asian cities intrinsically become loci of historic, spatial, economic and socio-cultural diversity, intensity and complexity.

As globalisation continues to accelerate, the spatial, economic and socio-cultural diversity, intensity and complexity of Asian cities are only set to increase. Rising in tandem with these will be various environmental impacts. The concomitant social impacts would be widening economic gap between the urban affluent and the urban poor; social segregation; increasing vulnerability to environmental disasters; rising intensity and complexity of relief efforts and costs in disaster responses; energy and food security; depleting urban health and safety; and escalating costs in the provision and maintenance of affordable and resilient urban infrastructure, services and housing.

Most solutions to the diverse, intense and complex issues facing Asian cities have largely found their roots in non-Asian theories and practices, and premised largely upon their economic viability and profitability, leading to homogeneity in urban solutions. Aggravating this are the cumulative unintended effects of increased exposure to other urban contexts among planners and curriculum contents of formal planning education in Asian planning schools which have been inadvertently built upon predominantly Western theories, giving rise to the crucial issue of authenticity and identity crisis of Asian cities.

The 13th International Congress of APSA - APSA 2015 - challenges the best minds in the academia and practice of urban planning and design, especially in Asia, to jointly deliberate upon, and set an Asian Urban Agenda towards planning for Asian DiverseCity, IntenseCity, ComplexCity and AuthenticCity. The Congress promises a stimulating and exciting exchange of knowledge and ideas that is not to be missed by urban scholars, practicing urban planners and designers, urban policymakers, academics and practitioners from other relevant professions.

#### **FOREWORD**

TOWARDS AN ASIAN URBAN AGENDA Planning Asian DiverseCITY, IntenseCITY, ComplexCITY & AuthenticCITY

Prof. Datuk Ir. Dr. Wahid bin Omar Universiti Teknologi Malaysia Vice Chancellor



As we progress steadily through the first half of the second decade in the century that is dubbed Asian and characterised by unprecedented urbanisation, there is no better time and place than now and here in Universiti Teknologi Malaysia (UTM) for Asian planning schools and practice to converge and intellectually reflect on "where we are" and "where do we go from here?" in Asian urbanisation and urban planning.

Being a premier research university and the knowledge hub of the *Skudai Innovation Valley* that is strategically located in the rapidly developing *Iskandar Malaysia* region, UTM is the right host of this very important 13<sup>th</sup> International Congress of Asian Planning Schools Association (APSA 2015). The Congress theme: **Towards an Asian Urban Agenda: Planning Asian DiverseCITY, IntenseCITY, ComplexCITY and AuthenticCITY**, aptly captures the very essence of the ongoing global and regional recentralisation into Asia of flows and powers in demographics, economics, capital, knowledge, information, human capital, technology and innovation; as well as the unfolding of the multitude of not-yet-amply-understood phenomena and impacts of global economic, environmental and socio-political processes that demand urgent attention from urban scholars, planners and managers alike.

The organisation of APSA 2015 by UTM in collaboration with APSA is well in line with UTM's long-term strategic plan to become one of the top 50 world universities in the field of engineering and technology by 2020. Guided by the UTM Global Plan 2012-2020, we are committed to playing even more significant roles in contributing to a better world and, certainly, a better Asia. It is my sincere hope that APSA 2015 will result in many high-impact academic and professional collaborations and partnerships between UTM, APSA and other Asian faculties and practices in urban and regional planning and the built environment as we take up the challenge of planning for sustainable Asian cities.

It gives me great pleasure and honour to welcome esteemed Asian Planning Schools Association (APSA) Executive Committee and respected congress speakers and participants from beyond and within Malaysia to UTM. I take this opportunity to wish you an enjoyable stay in Johor Bahru while exploring UTM's campus, and a fruitful exchange of knowledge and ideas in the Congress. Lastly, I congratulate the Department of Urban and Regional Planning and the Faculty of Built Environment, UTM on the successful and timely organisation of the Congress.

#### **FOREWORD**

#### TOWARDS AN ASIAN URBAN AGENDA Planning Asian DiverseCITY, IntenseCITY, ComplexCITY & AuthenticCITY

#### Prof. Dr. Ahmad Nazri Muhamad Ludin Congress Chairman



On behalf of the APSA 2015 Congress Committee, it is my esteem pleasure to welcome you to the 13th International Congress of Asian Planning Schools Association (APSA 2015) at Universiti Teknologi Malaysia (UTM) in Johor Bahru, Malaysia. UTM, the country's pioneer institution in the urban and regional planning discipline is indeed honoured to host this biennial prestigious event. APSA 2015 will continue the tradition and unique opportunity of bringing together researchers, academics and professionals from all over Asian to exchange ideas on latest topics in planning, technology trends and the challenging yet exciting future directions for Urban Planning agenda in Asia.

This year, the theme for APSA2015 is 'Towards an Asian Urban Agenda: Planning Asian DiverseCity, IntenseCity, ComplexCity and AuthenticCity', and will feature papers/presentations/posters across 6 tracks encompassing Urban Planning and Design Challenges, Urban Institutions and Governance, Bridging Urban Research and Urban Policy, Soul-Searching Planning Education, Green Growth – The New Prosperity and Urban Equity and Authenticity. The theme was developed with the idea of going beyond rhetoric and planning in the Asian urban context. It is timely for the Asian urban planners to rediscover the Asian wisdom and promote an Asian renaissance in urban and regional planning.

It is gratifying to acknowledge that APSA2015 will have more than 200 participants from about 20 countries in Asia and other parts of the world. We thank all authors and participants for your invaluable contributions in making APSA2015 a success. As a token of our appreciation to paper presenters, we have appointed a panel of independent jurors to select 3 papers for the Best Paper award. A post-congress visit has also been arranged to make your visit to Malaysia even more enjoyable and memorable, should you decide to join.

We hope that this year, APSA, with the wide spectrum of topics presented and acknowledging the future challenges in managing rural and urban areas, will be able to put forward a congress resolution that will be the impetus to stimulate further research and collaboration between institutions; introduce and promote fresh ideas for urban and regional planning that is authentic to Asia.

As Chairman of APSA2015, I would like to express my heartfelt gratitude to the organising committee and various working committees for their tireless effort and commitment in making this event a success. My sincere appreciation also goes to the APSA executive committee, co-organisers, co-operating institutions and the sponsors for their time, effort and contribution. I strongly belief and wish that all delegates will benefit from this assembly of great minds and that our foreign delegates will have a memorable and enjoyable stay in Malaysia.

### **PROGRAMME**

#### 12 August 2015 (Wednesday)

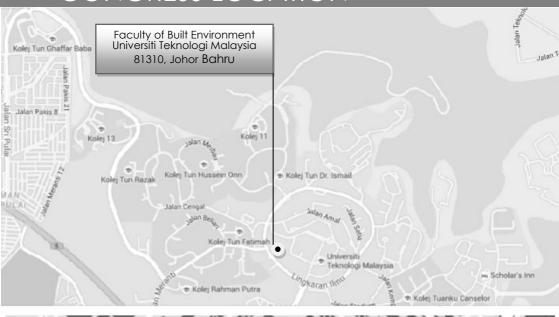
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08:00	Registration
08:45	Participants To Be Seated
08:50	Arrival of UTM's Vice Chancellor
09:00	Doa
09:05	Welcoming Speech
	Prof. Dr. Syed Zainol Abidin Idid
	APSA Vice President
09:15	Opening Speech
	Prof. Datuk Ir. Dr. Wahid bin Omar
	UTM Vice Chancellor
09:35	Tea Break
10:00	Keynote Address I
	Prof. Dr. Trevor Sofield
	Senior Visiting Professor, Faculty of Built Environment, UTM
11:00	Parallel Sessions I
12:30	Lunch Break
14:00	Keynote Address II
	Adjunct Prof. Datuk Ismail bin Ibrahim
	Chief Executive, Iskandar Regional Development Authority
	(IRDA)
14:45	Parallel Sessions II
16:00	Tea Break
16:15	Parallel Sessions III
17:30	End
20:00	Gala Dinner
13 August 20	15 (Thursday)
9	` ''

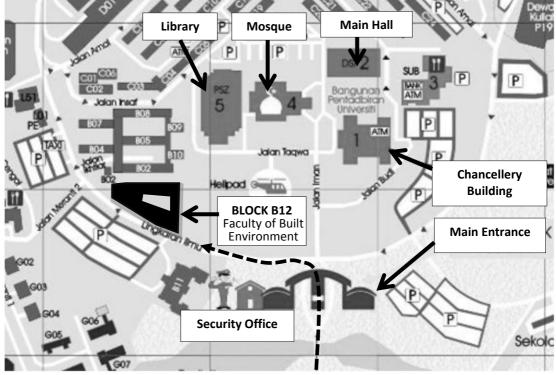
08:00 08:30	Registration Keynote Address III Prof. Dr. Amran bin Hamzah Director, Centre for Innovative Planning and Development (CiPD), UTM
09:15	Parallel Sessions IV
10:30	Tea Break
10:45	Parallel Sessions V
12:30	Lunch Break
13:30	Poster Paper Presentation
14:00	Parallel Sessions VI
15:00	Panel Discussion
16:00	General Assembly
16:30	Closing
17:00	Tea Break & End
17:00	APSA Council Member Meeting

#### 14 August 2015 (Friday)

Post-Congress Visits

# CONGRESS LOCATION





# CONGRESS LOCATION

#### **UNIVERSITI TEKNOLOGI MALAYSIA**



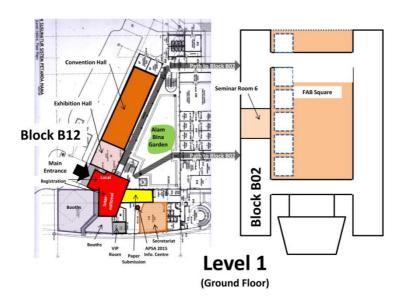


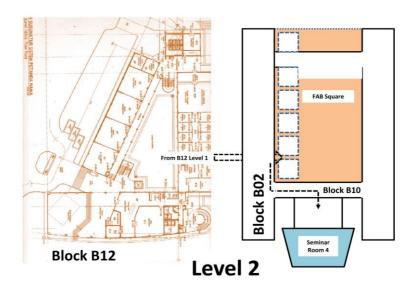




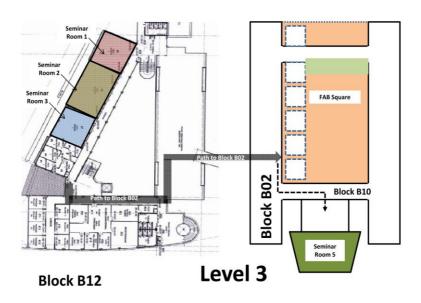
Congress Venue: Block B12 Faculty of Built Environment, Universiti Teknologi Malaysia, 81310 UTM, Johor Bahru, Malaysia.

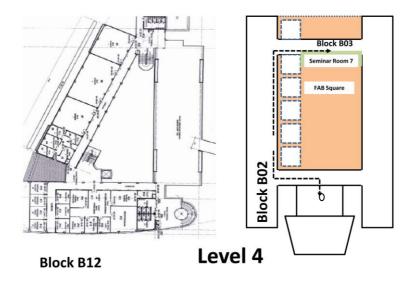
# CONGRESS VENUE





# **CONGRESS VENUE**





#### TRACKS AND TOPICS

#### Track 1: Urban Planning and Design Challenges (PD)

Asian Cities as Drivers of the Asian Century: Challenges to Urban Planning and Design

- Towards defining an Asian urban agenda
- Urban planning the Asian way: theories, models, techniques and tools
- Characterising Asian megacities, megalopolis and urban regions
- New roles of planners: advocators, facilitators, enablers and collaborators
- Unlocking the urban housing dilemma/issues/problems
- Transportation planning and urban form in an era of resource and energy scarcity
- Promoting green urban mobility and travel behaviour successful Asian cases
- Urban and spatial development in the Information Age
- Linking the urban-rural divide or making sense of the urban-rural blurring?
- Polycentric urban regions, supra-national regional planning

#### Track 2: Urban Institutions and Governance (IG)

Towards Resilient Asian Cities: Better Urban Institutions and Governance in an Age of Uncertainties

- Urban dynamics: managing change through governance
- Strategic regional partnerships and cooperation among cities
- Collaborative planning and governance
- Disaster preparedness/reconstruction and risk management
- Critical Issues in Urban Development
- Climate change co-benefits for political buy-in
- Overcoming behavioural and institutional inertia in city planning
- Reconciling national and local development goals and priorities
- Planning cities with limited capacities and resources
- Planning beyond administrative-spatial and disciplinary boundaries
- Planning functional urban areas vs. administrative spatial entities
- (Future) Challenges to good urban governance

#### Track 3: Bridging Urban Research and Urban Policy (RP)

Unlocking the Potential of Urban Research in Managing Asian Cities

- Asian planning theories for sustainable, livable Asian cities?
- Critical revisit of Asian wisdom in planning
- Learning from Asian cities: from theory into practice
- Understanding and managing sprawl
- Data sources and methods for spatial and strategic planning
- Planning/Development tools and approaches for managing
- Towards evidence-based research and research-informed policymaking
- Successful examples of academia-industry-policymaker partnerships
- The 'New Sciences' and their application in Asian urban planning GIS and IT solutions in urban planning

#### TRACKS AND TOPICS

#### Track 4: Soul-searching Planning Education (PE)

Rethinking Planning Education for an Asian Urban Century

- Towards an Asian Planning Education Manifesto for an urban century?
- Future perspectives for planning education within the information society
- Re-scoping Planning Education in an increasingly internationalised /regionalised world
- Teaching the art of scientific research and science of artistic design of cities
- From applied Western theories to fundamentally Asian theories of Asian urbanisation
- (Re)Training planners of tomorrow
- Exploring the potential of joint curriculum among Asian planning faculties
- Incorporating resilience and risk management in planning
- Comparative study in borderless planning

#### Track 5: Green Growth – The New Prosperity (GG)

Prosperity and Sustainability Beyond 2020: Asian Green Growth as the Way Forward

- Towards low carbon economies: decoupling growth from environmental impacts
- Urban ecosystem analysis, protection and remediation
- Urban development and environmental legislation and policies
- Urban innovations for addressing food and energy security
- Revisiting sustainability consciousness
- Urban regeneration and sustainable urban areas
- Policies for promoting green technology and green industry
- Asian green growth best practices

#### Track 6: Urban Equity and Authenticity (EA)

Towards Inclusive Asian Cities: Rationalising Equity and Authenticity with Unprecedented Urban Diversity, Intensity and Complexity

- Inclusive urban/city planning rhetoric vs. reality
- Housing for all and urban sustainability
- Urban conservation, cultural heritage and tourism planning
- Community and economic development
- Traditional values vs. modern development
- Empowerment and true participation in development planning
- Sustainable urbanisation, social and cultural issues
- The lingering problem of urban poverty
- Planning for and with an ageing population
- Planning for and with vulnerable, disadvantaged and underprivileged aroups
- Managing the 'shrinking city' phenomenon
- Global issues, global solutions and the urban identity crisis

#### KEYNOTE SPEAKER

Chief Executive
Iskandar Regional
Development Authorithy



MUAR-born DATUK ISMAIL BIN IBRAHIM received his early education at the Malay College Kuala Kangsar and went on to study town planning at the Heriot-Watt University in Edinburgh, Scotland.

He is registered with the Board of Town Planners Malaysia and started his career in the civil service in 1983 as a town planning officer attached to the Federal Department of Town and Country Planning, Ministry of Housing and Local Government. In 1990 he was awarded the British Council Fellowship to specialise in Planning Law in Newcastle University, England.

In April 2003, he was appointed as Penang State Town and Country Planning Department Director. In February 2006, he was seconded as Khazanah Nasional's Senior Vice President of Special Projects to oversee the planning of the southern economic region in Johor, known today as Iskandar Malaysia.

In January 2009, Ismail was appointed as Director of Physical Planning Division, Town and Country Planning Department at its headquarters in Kuala Lumpur. There, he was tasked to manage the preparation and revision of the National Physical Plan. That document served as a key input for the 10th Malaysian Plan. He also served as Secretariat to the National Physical Planning Council chaired by the Prime Minister.

Effective 1 January 2010, Ismail was appointed as the Chief Executive of Iskandar Regional Development Authority (IRDA). His main responsibility is to advise the Prime Minister and Menteri Besar Johor as co-chairmen of the Board of IRDA in planning and implementing the economic, physical and social development strategies to meet the vision of realising the Iskandar Development Region as a Strong and Sustainable Metropolis of International Standing.

Amongst his many achievements in IRDA include securing a total cumulative investment worth RM138 billion for the period 2006 to April 2014 and the successful execution of public infrastructure projects worth RM7 billion for Iskandar Malaysia. He was responsible for coordinating and facilitating public private cooperation to develop Iskandar Malaysia through various programmes such as human capital and entrepreneurship, safety and security, public transportation, housing and the environment.

Ismail had previously served as part time lecturer in University of Malaya (UM), International Islamic University (UIA), Universiti Teknologi Mara (UiTM) and Universiti Teknologi Malaysia (UTM) between 1993 and 2002. He is currently a Board Member of the Malaysia Town Planners Board, past Vice President of the Malaysia Institute of Planners (MIP), President of MCOBA Southern Chapter and a Harvard Business School Alumni. He sits in the Malaysia – Singapore Business Council and a member of the National Bio Technology Council. He was conferred Adjunct Professor with the Faculty of Built Environment, Universiti Teknologi Malaysia in 2013 until today.

#### KEYNOTE SPEAKER

#### Senior Visiting Professor Faculty of Built Environment Universiti Teknologi Malaysia



Dr Trevor Sofield is an accidental planner. His studies covered social anthropology, primatology, international economics, development theory, a doctorate in environmental science & geography (and in 1974 he gained a certificate in housing construction and built a double-storey house in Canberra, Australia).

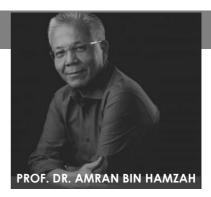
He was first exposed to planners and planning as an Australia diplomat (for 21 years, 1968-1989), serving in Tanzania and Zambia in East Africa, Sri Lanka in South Asia, Singapore and Hong Kong in East Asia, and New Zealand, Fiji, Vanuatu, and Solomon Islands in the South Pacific, where he managed Australian aid programs in a range of sectors such as health, education, housing, agriculture, transport, environmental management, infrastructure and urban planning. From 1985-1987 he was Deputy Secretary General of the South Pacific Forum (that region's equivalent of ASEAN), in charge of eight regional development programmes including regional trade, air and sea transport, tourism, telecommunications, and energy.

He left the Australian foreign service in 1989 to establish an island resort in Solomon Islands, which with a business partner he ran successfully until 2002. In 1990, the construction phase of the resort completed, he became an academic joining the first department of tourism planning in Australia at James Cook University, Queensland. In 1993-5 he was seconded to the Hong Kong Polytechnic University to assist in establishing their first degree course in tourism, then moved to Western Australia as Foundation Chair of the Tourism Programme at Murdoch University, and from there to Foundation Professor of Tourism at the University of Tasmania, where he remained until he retired in 2010. Throughout his academic career and continuing to the present, Dr Sofield has been involved in numerous policy, planning and development projects, amassing some 90 consultancy and research projects in more than 30 countries. These projects have covered virtually all aspects of policy and planning, from the establishment of national parks in Nepal and China, to planning of world heritage sites as an adviser with UNESCO (including 8 cities across Asia, from Kandy in Sri Lanka to Bhakatapur in Nepal, Malaka and Penang in Malaysia, Angkor in Cambodia, Luang Prabang in Laos, Hoi An in Vietnam, and Lijiang in China). Current projects include researching place-making in rural towns in Tasmania; a demographic analysis of one of Hong Kong's most visited outer islands, Cheung Chau; and planning for a new glaciers national park in Tibet centred on creation of a new service town with a capacity for 500,000 visitors per year.

With more than 200 publications (books, manuals, academic papers, book chapters, government reports, etc) to his name, Dr Sofield's multi-faceted experiences combine to allow a very strong practical focus to permeate much of his work: this dual emphasis means that he is a practitioner, an educator and a researcher, underlined by his business experience in running his own resort. He is married with three children who have blessed him with five grandchildren.

#### KEYNOTE SPEAKER

**Director**Centre for Innovative
Planning andDevelopment (CIPD)



AMRAN HAMZAH is a Professor in Tourism Planning at Universiti Teknologi Malaysia with more than 30 years of experience in tourism planning education, research and consultancy. He also holds the positions of Co-Chair of TILCEPA, IUCN (Theme on Indigenous Peoples, Local Communities and Equity and Protected Areas), Vice President of the Malaysian Ecotourism Association (MEA) and Member of the Islamic Tourism Centre Board of Trustees.

His areas of specialisation are Community Based Tourism (CBT) and Tourism in Protected Areas, having led more than 70 research and consultancy projects for a wide spectrum of international and national clients. Amran has been instrumental in building the local capacity and scaling up of CBT at Miso Walai Homestay in the Kinabatangan, Sabah which is arguably the best performing CBT in Malaysia. Together with a consortium of researchers from six local universities, Amran is currently involved in a five-year research project on Responsible Rural Tourism.

Amran led the consultant team commissioned by the Asia Pacific Economic Cooperation Tourism Working Group (APEC TWG) and Ministry of Tourism Malaysia to conduct a one-year research on CBT in 2009, which led to the publication of the Handbook on Community Based Tourism: "How to Develop and Sustain CBT".

In 2012, Amran led the Tourism Planning Research Group (TPRG), UTM in conducting the Strategic Review of Malaysia's Tourism Industry Policy and Implementation, a nationwide study commissioned by the Ministry of Tourism aimed at formulating strategic direction to drive the industry towards high yield tourism.

In 2013, Amran co-authored the Asian Philosophy of Protected Areas for the IUCN Biodiversity Conservation Programme, which examined the commonalities across Asia in terms of the symbiotic relationship between humans and nature as well as the imbedded spiritual elements that makes its perspective distinct from the colonial worldview.

Amran is currently involved in the preparation of the National Ecotourism Plan 2015-2025 for the Ministry of Tourism and Culture Malaysia.

Amran has also been active in designing and delivering capacity building programmes for rural tourism in the ASEAN region and was the project leader for the formulation of the ASEAN Ecotourism Strategic Plan in 2014. Amran is currently leading a team of consultants from UTM commissioned to formulate the National Ecotourism Plan 2015-2025 for the Ministry of Tourism and Culture Malaysia. Together with the World Commission on Protected Areas Asia (WCPA Asia) and the Ministry of Environment Japan, Amran is presently researching alternative forms of governance of protected areas for Asia that recognise traditional knowledge, ancient wisdom and the Asian development philosophy.

Track 1: Urban Planning and Design Challenges (PD)

Topic 7: Promoting Green Urban Mobility and Travel Behaviour

Date: 12 August 2015 Time: 11:00 to 12:30 Venue: Convention Hall

Time	Title	Author(s)	Page
11:00	NMT as Green Mobility Solution for First/Last Mile Connectivity to Mass Transit Stations for Delhi	Chidambara	41
11:15	A Theoretical Overview of Road Hump Effects on Traffic Speed in Improving Residential Living Environment	Khairun Sarah Radhiah Bachok , Abdul Azeez Kadar Hamsa Mohd Zin bin Mohamed and Mansor bin Ibrahim	42
11:30	Sustainable Pedestrian Ways in CBD of Tunjungan Surabaya: How New Urbanism Principles Can Be Realized?	Ardy Maulidy Navastara and Veronica Mandasari	43
11:45	Does a Compact City Promote The Pedestrian Safety?	Yuna Park, Gain Lee and Gihyoug Cho	44
12:00	A Model for Assessing the Level of Walkability in Urban Neighbourhoods in Sri Lanka	Gayani Ranasinghe, Susantha Amarawickram, Rangajeewa Rathnayake, Thilini Randeniya and Senani Rathnasiri	45
12:15	Exploring the Implementation and Success of Green Urban Mobility in Asian Cities	Nuhu H. Tini and Zahid Sultan	46

Track 5: Green Growth – The New Prosperity (GG)

Topic 2: Urban Ecosystem Analysis, Protection and Remediation

Time	Title	Author(s)	Page
11:00	Mangroves Degradation: A Local Perspective on its Awareness	Mazni Adibah Abd Rahman and M.Zainora Asmawi	166
11:15	The Effect of Regional Assets on Place Attachment	Na-Eun Hong, Yong- Jae Shin, Hyun-Min Ju, Kyung-Min Han, Jong-In Baek and Yong-Un Ban	167
11:30	Land Cover Change and the Bio-capacity of CO2 Gas Emission Absorption in Gresik Urban Area	Achmad Ghozali, Fery Irfan Nurrahman, Eko Budi Santoso, Belinda Ulfa Aulia	168
11:45	Green Open Space Provision Evaluation in Gresik Urban Areas Through Carbon Footprint Approach	Belinda Ulfa Aulia, and Eko Budi Santoso	169
12:00	Ecological and Sustainable Growth with Augmented Urban Planning and Designing	Arshia Khajooria Hazarika	170
12:15	Effect of Kenaf Clay Composition on Workability of Kenaf Clay Roof Tile Mixture	Tengku Intan Suraya Tengku Aziz, Malsiah Hamid, Zakiah Ahmad and Ramlah Mohd Tajuddin	171

## Track 3: Bridging Urban Research and Urban Policy (RP) Topic 10: GIS and IT Solutions in Urban Planning

Time	Title	Author(s)	Page
11:00	Predicting Urban Sprawl for Rajkot City using SLEUTH Model and GIS Techniques	Shaily R Gandhi, Shashikant A. Sharma and Anjana Vyas	122
11:15	Managing Urbanisation and Urban Sprawl in Malaysia by Using Remote Sensing and GIS Applications	Nur Aulia Bt Rosni, Norzailawati bt Mohd Noor and Alias Abdullah	123
11:30	Quantifying Urban Sprawl for Rajkot City using Geospatial Technology	Shaily Raju Gandhi, Shashikant A. Sharma and Anjana Vyas	124
11:45	Optimal Utilization of Remote Sensing and GIS Technologies for Addressing Ecologically Compatible Land Use Planning	Harisankar Krishnadas and Kamal Jain	125
12:00	Spatiotemporal Land Use and Land Cover Change in Major River Basins in Comprehensive Development Area	Wan Yusryzal Wan Ibrahim and Ahmad Nazri Muhamad Ludin	126
12:15	Measurements and Promotion Suggestions of Pudong's Jobs-housing Balance by a GIS-based Network Anamysis	Wang Yibing, Wu Min and Feng Qiong	127

Track 4: Soul-searching Planning Education (PE)
Topic 6: (Re) Training Planners for Tomorrow

Time	Title	Author(s)	Page
11:00	Appropriate Pedagogical Approaches For Conduct of Site Planning and Built Environment Studio in Spatial Planning Education Programs	Valliappan Alagappan	156
11:15	A Practical Approach to Landscape Architecture Program in Vietnam - Towards A Reality of Urban Planning	Nguyen, Thai Huyen	157
11:30	A New Challenge of "International Program in Architecture and Urban Design" at Meiji University, Japan	Masami Kobayashi	158
11:45	Islamisation of Town Planning Education: A Review on the Courses Offered by the Department of Urban and Regional Planning, International Islamic University Malaysia	Azila Ahmad Sarkawi, Alias Abdullah and Norimah Md. Dali	159
12:00	Exploring Multi-disciplinary Approach in Urban Planning: Need for a Paradigm Shift in Planning Education in India	Anil Kumar Roy, Debjani Ghosh and Ajith Kaliyath	160
12:15	Design Theory and Strategy for Re-Editing Fragmented Cities Sustainable Design Camp and International Architectural & Urban Design Workshop	Koichiro Aitani, Takeru Sakai and Masami Kobayashi	161

### Track 6: Urban Equity and Authenticity (EA)

Topic 2: Housing for all and Urban Sustainability

Time	Title	Author(s)	Page
11:00	Housing Inequality in the Northern Corridor of Bangkok: A Structural Equation Model Analysis	Choochart Taeshapotiwarakun and Apiwat Rattanawaraha	193
11:15	Minimum Housing Standard And Housing Satisfaction: A Case of Korea	Jun-Hyung Kim	251
11:30	Five years' Review and Design Promotion Suggestions of Public Rental Housing Policy In China: Study on Cases in Shanghai	Feng Qiong, Wu Min and Wang Yibin	194
11:45	An exploration of Power Play in Public - Private Partnerships in Housing Redevelopment in Colombo, Sri Lanka	Priyanwada Indeewaree Singhapathirana	195
12:00	Re-Mobilization And Re-Socialization Support For Disadvantaged Household In Public Housing Community: Case Study Of Osaka City, Japan	Hong-Wei Hsiao and Tetsuo Kidokoro	196
12:15	Influences of Housing Settings and Design in Fulfil the Malays Resident's Social Cultures	Noor Aimran Samsudin and Syed Zainol Abidin Idid	197

Track 6: Urban Equity and Authenticity (EA)

Topic 5: Traditional Values vs. Modern Development

Time	Title	Author(s)	Page
11:00	The Values of Traditional Earthen Houses as the Historic Urban Landscape in the City of Bam, Iran	Maliheh Noroozi and Alireza Fallahi	198
11:15	Keeping Uniqueness of Yogyakarta with Tagline "Jogja Istimewa" (Jogja is Special)	Wakhidah Kurniawati	199
11:30	Study on the Renewal of Shanghai Lilong Problem under the Consumer's View	Baoyu Wang and Guanzeng Zhang	200
11:45	Preservation of Urban Cultural Landscape: Case Study of Roji in Kagurazaka, Tokyo	Benika Morokuma	201
12:00	A Study on Development Directions of Castle Towns based on Different Types in Small and Medium Sized Cities	Jae-Hee Lee, Oh- Rock Jung and Hyun-Su Jung	202
12:15	The Landscape Change Of Qiang's Settlements In Upper Reaches Of Minjiang River After Wenchuan Earthquake	Xiaofei Wen and Ying Meng	203

Track 2: Urban Institutions and Governance (IG)

Topic 1: Urban Dynamics: Managing changes through Governance

Time	Title	Author(s)	Page
11:00	Political Campaigns and Urban Transformation in Maoist China, 1949-1976.	Zhu Qian	84
11:15	Claiming the City: The Rise of Aam Aadmi Party in Delhi from Advocacy to Governance	Shrawan Kumar Acharya and Atanu Chatterjee	85
11:30	Democratic Values and Participatory Governance: Examining the E- Government System of Ethiopia	Alehegn Meseret Taye and Jiyoung Park	86
11:45	Urban Environment and Governance: Issues and Challenges in Indian Cities	Subhrangsu Goswami and Anuradha Adhikari	87
12:00	Governance Trends In A Decentralised Regime: A Study Of Health Projects In Two Urban Local Governments In Kerala, India	Anuraana Aanikari Angelique Chettiparamb	88
12:15	A Study on the Establishment of Institutional Framework for Collaborative Urban Planning in Afghanistan Focused on Analyzing the Transferring Process of International Urban Planning Systems	Habib Ahmad Javid and Tetsuo Kidokoro	89

# Track 1: Urban Planning and Design Challenges (PD) Topic 6: Transportation Planning and Urban Form

Date: 12 August 2015 Time: 14:45 to 17:30 Venue: Convention Hall

T!	T:U -	A	D
Time	Title	Author(s)	Page
14:45	Parking Management towards Populated Areas: Spontaneous Renewal of Parking Space in the Lilong of Shanghai	Sun Yuman	47
15:00	Urban transport disadvantage in the cities of Islamabad / Rawalpindi, Pakistan	Muhammad Adeel, Anthony G.O Yeh and Zhang Feng	48
15:15	Subdivisions in Iskandar Malaysia: Do Their Designs Encourage Increase in Travel Carbon Emissions?	Anis Shazreen Azmi and M. Rafee Majid	49
15:30	An Evaluation on Tourist Destinations and the relationship with the Transportation System in Jakarta, Singapore and Malaysia.	Bela Priyendiswara Agustina	50
15:45	Implications of Sprawled and Compact Development on Mobility Patterns: A Case- study of Bhopal, India	Neha Saxena and Chidambara	51
16:00		Tea Break	
16:15	Blending Transit-Oriented Development (TOD) and Heritage: Case Study of Kota Tua Area, Jakarta	Candraningratri Ekaputri Widodo and Tetsuo Kidokoro	52
16:30	Evaluating significant factors that influence public transport usage in Kerman (Iran)	Azin Bahreini, Hamed Mirzaei, Mehdi Moeinaddini, Zohreh Asadi-shekari, Muhammad Zaly Shah	53
16:45	Landscape Relieve for Urban Design:Rejuvenating Baranangsiang Terminal, Bogor, Indonesia	Rezky Khrisrachmansyah, Candraningratri Ekaputri Widodo and Cindy Aliffia	54
17:00	A Framework for Financing Metro Rail Infrastructure Through Land Value Capture Mechanisms : Case of Jaipur	Piyush Goyal and Sejal Patel	55
17:15	Model of Spatial-Transportation Interaction in Makassar City - Indonesia	Umar Mansyur	56

## Track 5: Green Growth – The New Prosperity (GG) Topic 8: Asian Green Growth Best Practices

Time	Title	Author(s)	Page
14:45	The Rukun Warga-based 3Rs and and Waste Bank as Sustainable Solid Waste Management Strategy	Sherly Towolioe, Ariva Sugandi Permana, Norsiah A. Aziz, Ho Chin Siong and Dario G. Pampanga	172
15:00	Applying Urban Resilience Theory to Flooding on flood-prone urbanizing settlements along the Pampanga River	Theresa C. Rivera and Nappy L. Navarra	173
15:15	Greenway-oriented Strategy of Urban Renovation - A Case of Waterfront in Guang'an Downtown	Gao Ran and Cao Shan	174
15:30	Examining the Cooling Effect of Green Parking On Street	Jong Hwa Park and Gi Hyoug Cho	175
15:45	Green Growth In Iskandar Malaysia: Scrutinizing The Link Between Green Growth and Social Policy	Soraya binti Othman and and Tetsuo Kidokoro	176
16:00		Tea Break	
16:15	System Design Research of Sustainable Campus: Case of New JINDAI Sustainable Primary School in Western China	Su Zhaoyang	177
16:30	Effect of Changing Landuse on Urban Heat Island Formation	Vyas Anjana and Dave Bindi	178
16:45	Scenario-based Application of Neighborhood Greenery Methods towards Mitigating Urban Heat Environment in the World Heritage Site - Malacca, Malaysia	Kei Saito, Ismail Said and Michihiko Shinozaki	179
17:00	Understanding Transformation of Housing Neighbourhoods in Malaysia from Institutional	Siti Hajar Misnan and Edwin H.W. Chan	257
	Change Perspective		

Track 3: Bridging Urban Research and Urban Policy (RP)

Topic 1: Asian Planning Theories for Sustainable, Liveable Asian Cities

Topic 2: Critical Revisit of Asian Wisdom in Planning

Time	Title	Author(s)	Page
14:45	Sustainable city, Liveable city, Global city or Smart City: what value addition does smart city bring to these paradigms in context of global south?	Praveen Yadav, Sejal Patel and Piyush Goya	128
15:00	Measuring Performance of Urban Farming for Sustainable Urban Development in the City of Surabaya, Indonesia	Eko Budi Santoso, Belinda Ulfa Aulia and Rini Ratna Widya	129
15:15	Smart City Modelling On Green Open Space: Case Study Yogyakarta City and Batu City	Emmy Yuniarti Rusadi, Pebri Nurhayati, , Amandus Jong Tallo and Bakti Setiawan	130
15:30	Outreach of pro-poor housing programs and projects: Is it sustained?	Gowthami Sai Dubagunta and Sejal Patel	131
15:45	Measuring the dimensions and attributes of liveability of the low-income housing of Niger State, Federal Republic of Nigeria	Sule Abass Iyanda and Mohammad Abdul Mohit	132
16:00			
10.00		Tea Break	
16:15	Impact on Public Service Demands by Returning Rural Labours in County Towns in Central China	Tea Break  Hu Wanshuchang and Qian Yun	133
	Returning Rural Labours in County Towns in	Hu Wanshuchang	133
16:15	Returning Rural Labours in County Towns in Central China Study of Building Setback towards Spatial Planning post Tsunami in City of Banda Aceh,	Hu Wanshuchang and Qian Yun Mirza Irwansyah and	
16:15	Returning Rural Labours in County Towns in Central China  Study of Building Setback towards Spatial Planning post Tsunami in City of Banda Aceh, Indonesia  An integrative micro-scale planning methodology based on architectural level: a	Hu Wanshuchang and Qian Yun  Mirza Irwansyah and Hasnidar  Feng rong and Liu	134

Track 3: Bridging Urban Research and Urban Policy (RP) Topic 3: Learning From Asian Cities: Theory into Practice Topic 5: Methods for Spatial and Strategic Planning

Time	Title	Author(s)	Page
14:45	The Importance of Information Sharing in Urban Planning: A Review	Nordaliza Zulkifli, Mohammad Tahir Sabit Mohammad and Abd. Halim Hamzah	138
15:00	Monitoring the effectiveness of participatory planning using online in Kenjeran district Surabaya	Hertiari Idajati, Adjie Pamungkas & Vely Kukinul Siswanto	139
15:15	Privatisation of Electricity Service Delivery in Developing Nations: Issues and Challenges	Olamide Eniola Victor, Norsiah Binti Abd. Aziz, Mr. Abdul Razak Bin Jaffar	140
15:30	An Investigation on the Relationship between Land Use Composition and PM10 Pollution in Iskandar Malaysia	Muhammad Azahar Zikri Zahari, M. Rafee Majid, Ho Chin Siong, Gakuji Kurata, and Nadhirah Nordin	141
15:45	Agriculture loss of paddy field in response to rapid urbanization in Alor Setar	Muhamad Firdaus Bin Johan, Ahmad Nazri Muhamad Ludin	142
16:00		Tea Break	
16:15	Demand Assessment Tool for Strategic Planning: A decision making tool for Demand prediction and Scenario based Strategic Planning through consumer data	Rujul Joshi	143
16:30	The influence of green open space and historical area on the urban growth of Banda Aceh: A preliminary study using SimWeight	Ashfa Achmad, Ichwana Ramli, and Halis Agussaini	144
16:45	Integration of Markov Chain Analysis and Similarity-Weighted Instance- Based Machine Learning Algorithm (SimWeight) to Simulate Urban Expansion	Yakubu Aliyu Bununu, Ahmad Nazri Muhamad Ludin and Nafisa Hosni	145
17:00	Effective Space Maintenance Measures Using Vacant and Deserted Houses -Focused on Cheongju City	Kyung-Min Han, Jong-In Baek and Yong-Un Ban	146
17:15	"6S" Principles for Super Smart City	Su Yunsheng	147

# Track 6: Urban Equity and Authenticity (EA) Topic 4: Community and Economic Development

Time	Title	Author(s)	Page
14:45	Do More Educated Workers Migrate More?	Ye Seul Choi, Chanyong Kim, So Hyeon Lee and Up Lim	204
15:00	Revitalizing the Slums as a Micro Economic Center – a Case of Scavenger's Community	Richa Gupta	205
15:15	The Complexity of Jakarta's Mega Urbanization: A Preliminary Observation	Asrul Sidiq and Asrizal Luthfi	206
15:30	Mainstreaming Urban Poor in The Economic Activities Through Micro-Finance: A Case Study of Bhairab Municipality, Bangladesh.	Muhammad Rashidul Hasan and Md. Musleh Uddin Hasan	207
15:45	Unraveling Manila's Underbelly: Analysis of the Role of an Informal Community in Manila's Urban Metabolism	Olivia Sicam and Nappy Navarra	208
16:00		Tea Break	
16:15	Regional wage gap and human capital in Korea : an unconditional quantile regression decomposition approach	Minyoung Kim and Up Lim	209
16:30	Leadership Styles: Incentive or Disincentive Approach In Addressing Street Vendor Problems In Jakarta And Bandung, Indonesia	Ariva Sugandi Permana, Norsiah Abd Aziz and Ho Chin Siong	210
16:45	Pedestrian Space Character of The Government-Business Center Area on Corridor Pahlawan Street - Simpanglima in Semarang City	Al'Aswad, Achmad Djunedi, Sudaryono, and Bambang Hari Wibisono	211
17:00	The Estimation of Effects of Subprime Mortgage for Improving the Farmland Pension System Using Intervention Time Series Model	Deokho Cho	212
17:15	Spatial Tolerance, Space of Tolerance, and the Tribute to Differences	Widya Suryadini, Iwan Sudradjat, I. Bambang Sugiharto, and Yasraf Amir Piliang	252

Track 6: Urban Equity and Authenticity (EA)
Topic 1: Inclusive Urban/City Planning
Topic 4: Planning for Vulnerable Groups

Time	Title	Author(s)	Page
14:45	The Quality of Children's Playground in Ha Noi under the Impact of Urbanization and Community Cooperative Strategy	Nguyen Thi Dieu Huong	213
15:00	Comparing Travel Characteristics Of Social Exclusion And General Group	Yoonjeung Jang and Seongman Jang	214
15:15	Mapping Poverty Hot Spots in Peninsular Malaysia using Spatial Autocorrelation Analysis	M. Rafee Majid, Abdul Razak Jaffar , Noordini Che Man, Mehdrad Vaziri and Mohamed Sulemana	215
15:30	The Lingering Problem of Urban Poverty	Zungwenen Utange Jonathanand M. Rafee Majid	216
15:45	Water Supply System For The Urban Poor: A Study On Chittagong City Area, Bangladesh	Muhammad Rashidul Hasan , Md. Kausar Uddin and Md. Altasur Rahman Sarkar	217
16:00		Tea Break	
16:15	Characteristics of the Active Leisure Consumption by Young Seniors in Korea: Effects of Time and Income Constraints	Ji-Jung Huh and Mack Joong Choi	218
16:30	An Attempt of Spatial Building and Planning based on the Healthy Aging and Urban Agriculture:a case of Mansion Garden in National Taiwan University	Zhou Yong	219
16:45	Towards Aged-friendly Neighbourhoods in Malaysia	Hanan Elsawahli, Faizah Ahmad and Azlan Shah Ali	220
17:00	Associations between Walkability of Origin/Destinations and Elderly Travel Mode Choice	Hyunjoo Eom and Gi- Hyoug Cho	221
17:15	The Study of Equitable Planning in Chinese Rural Areas	Kangle Ding and Jingsheng Li	222

# Track 2: Urban Institutions and Governance (IG) Topic 4: Disaster Preparedness and Risk Management

Time	Title	Author(s)	Page
14:45	The Challenges of Governing Urban Rivers: The Case of the Iloilo River in the Philippines	Rhodella A. Ibabao, Vicente Balinas and Jeanette Deslate	90
15:00	Better Awareness for Better Natural Hazards Preparedness in Pakistan	Awais Piracha, Muhammad Tariq Chaudhary	91
15:15	Climate Migration and Change Of Human Lives And Social Structure	Reazul Ahsan	92
15:30	A Paradigm Shift From Emergency Response To Reconstruction and Rehabilitation: Creation of Peak National Body For Disaster Management In Pakistan	Shahed Khan and Fida Hussain Ashori	93
15:45	Amenity or Hazard?: The Effects of Landslide Hazard on Property Value in Woomyeon Natural Park Area, Korea	Jeongseob Kim, Junsung Park and D. K. Yoon	94
16:00		Tea Break	
16:15	Spatial Planning and Water risk management Interplay, The Case of Colombo, Sri Lanka	H.M Malani Herath	95
16:30	Analysis on Preventive Effects of Flood Damage Mitigation Measures in Korea	Cheol Hee Son, Jong In Beak and Yong Un Ban	96
16:45	Mitigation of Urban Heat Island by Restoring a Covered Stream	Yu-Mi Kim and Yong- Un Ban	97
17:00	The Critiques to Positivism Direction of Inquiry In Comprehending The Complexity of Governance In Managing Cities Competitiveness	Faizul Abdullah and Fatimah Yusof	98
17:15	A metaphor building on site interpretation: a case by attaching the traditional Chinese city understanding (Cheng)onto the Hakkas tu'lou co-housing building in China's red-Socialistic Episode of CCPC construction	Ming-Wei Liu	99

#### Track 2: Urban Institutions and Governance (IG) Topic 5: Critical Issues in Urban Development

Date: 13 August 2015 Time: 09:15 to 12:30 Venue: Convention Hall

venue. Convention hall			
Time	Title	Author(s)	Page
09:15	The Evolvement of Brand Identity of Langkawi Island, Malaysia	Mohd Fadil Mohd Yusof and Hairul Nizam Ismail	100
09:30	Divulging the Challenges Faced by Urban Based Tour Operator in Malaysia	Zatul Iffah Mohd Fuza, Hairul Nizam Ismail and Sulaiha Mohd Isa	101
09:45	The Unrestraint Hotels Development Impact in Yogyakarta City: Environmental, Social and Economic Impacts	Zealandia Sarah Nurul Fatma, Heni Ermawati and Yuli Agnes Karmila	102
10:00	Stakeholder Analysis In Organizational of Community-Based Tourism (CBT)	Siti Mariam bt Ismail and Nor Hazliza bt Abd Halim	103
10:15	The Challenges Of Private Sector-Led Mega- Scale Development Projects: The Case Of New Songdo City In Korea	Yoon-jung Kim and Mack Joong Choi	104
10:30		Tea Break	
10:45	From Border Opening to Cross-Border Cooperation - International Trade and Foreign Direct Investment Structure of Border Provinces	Li Xiaoxi and Lu Yisha	105
11:00	Designing Public-Private Partnership for Bontang Industrial Estate	Adjie Pamungkas, Yudha Ardian, Tony Hanoraga, Mohammad Sodiq, Muhktasor and Vely Kukinul Siswanto	106
11:15	Community-based Urban Risk Assessment Using Mobile GI Tools	Ayman M. Ismail, Mohamed Meselhy and Mona Shaban	107
11:30	Wards-app: Improving Local Area Administration through ICT and Citizen Partnership	Rujul Joshi	108
11:45	Institutional Setting of Transit-Oriented Development in Indonesia Related to Its Socio- economical and Socio-political Context	Astri Rosalin, Benedictus Kombaitan and Denny Zulkaidi	109
12:00	Impacts of Changing Urban Form on Hydrology; A Case Study of Mumbai	Madhura Yadav, Bibhu Kalyan Nayak	110
12:15	Critical Review on Structural Approach of Living Laboratory in Campus Sustainability	Hamiza Ahmad Tajuddin and Irina Safitri Zen	111

Track 1: Urban Planning and Design Challenges (PD)

Topic 2: Urban planning the Asian way: theories, models, techniques and tools

Time	Title	Author(s)	Page
09:15	Spatial Arrangement of Coastal Sama-Bajau Houses Based on Adjacency Diagram	Iziq Eafifi Ismail and Abdullah Sani Ahmad	57
09:30	Kampung as Urbanism: A Theoretical Approach	Wahyu Kusuma Astuti	58
09:45	Monitoring the Performance of State Structure Plan in Delivering Output Using Dynamic Model	Muhammad Faris Abdullah, Alias Abdullah, Shamzani Affendy Mohd. Din, Rustam Khairi Zahari and Samsuddin Jaafar	59
10:00	Urban Renewal Guidelines for Revitalizing Diversity of Central Business District: A Case Study of Silom Area	Anawin Chiamprasert and Jittisak Thammapornpilas	60
10:15	Implications of Iskandar Region to the Commercial Activities in Small Towns	Mohamad Hussaini bin Harun, Hamid Saad and Gobi Krishna Sinniah	61
10:30		Tea Break	
10:45	The Economy-Based Urban Regeneration Plan in Korea: Implications and Limitations through the Progress of Incheon's Challenge	Hyeyeong Yoon and Sangwoon Cho	62
11:00	Revisiting Concept of 'Smartness' for Indian Cities and Beyond	Uttam K. Roy, Piyush Soni and Udit Sharma	63
11:15	Negotiating the Power to Plan: Spatial Planning and Property Rights in Peri-urban China	Nick R. Smith	64
11:30	The Effect and Enlightenment of Chinese Urban Construction by New Urbanism	Jiang Naichuan and Li Fei	65
11:45	Measures of Beautiful Countryside Planning Of Metropolitan Suburban Countries Based on Modern Agriculture Development - Xu Yao County in Shang Hai as an Example	Ying Gu and Ze Zhang	66
12:00	A Brief Analysis of the Reasonable Pattern of Rural Land Utilization in Hetao Area A Case Study of the Village Planning in Bayannur	Huangfu Tianxing, Cao shan and Lin Ying	67
12:15	Nature Must be Defended: the making and governance of nature between urban Taipei and rural Pinglin	Hsin-Hua Chiang	68

Track 1: Urban Planning and Design Challenges (PD)

Topic 3: Characterising Asian megacities, megalopolis and urban regions Topic 5: Unlocking the urban housing dilemma/Transportation Planning

Time	Title	Author(s)	Page
09:15	An Evaluation of the Objective Analysis Methods applied in Visual Complexity Analysis in Landscape Planning	Garu Muni Wathsala, Lakpriya Gunawardena, Yoichi Kubota and Kiyotaka Fukahori	69
09:30	Non-Identical Twin Towns: Diversity in Urbanism Characteristics	Aditi Solanki and Sejal Patel	70
09:45	Social Network, Spatial Structure and Evolution of The YangTze River Delta Innovative Cities Cluster -Base on Data of Patent Cooperation	LU Tianzan	71
10:00	Linkage in Regional Planning of Vietnam	Nguyen To Lang	72
10:15	A Study on the Difference of Influence Factors of Subway Mode Shares Based on Distance to Central of Urban	Kijung Kim and Youngsoo An	73
10:30		Tea Break	
10:45	Challenges of Informal Settlements in Urban Area of Kabul City	Daryoosh Haziq and Morisako Kiyotaka	74
11:00	The Effects of High-Density Housing (Apartment) Development on Water Supply and Sewerage in Korea	Hae Yeon Lim and Mack Joong Choi	75
11:15	A Study on the Directions of Housing Supply for the One-Person Household in Local Small and Medium Cities	Jung-Geun Ahn, Tae- Joo Kim and Dong- Hwan Kim	76
11:30	Gentrification in Jakarta: An Indigenous Community's Perception	Santy Paulla Dewi	77
11:45	The Targets and Ways for Humanized Urban Traffic - The Experience of North America	Li Chi and Wang Zuo	78
12:00	Travel Behavior of Public Bicycle Users using GPS: A Case Study of Minhang District Shanghai	Baoxin Zhai and Wei Zhu	79
12:15	Tripographic Assessment of VFR Travel in Context of Malaysian Domestic Travelers	Sharifah Eisyahtun Syed Darar and Hairul Nizam Ismail	80

Track 5: Green Growth – The New Prosperity (GG)

**Topic 1: Towards Low Carbon Economies** 

Topic 6: Urban Regeneration and Sustainable Urban Areas

Time	Title	Author(s)	Page
09:15	Identify Significant Indicators For A Happy City	Hamed Mirzaei, Azin Bahreini, Mehdi Moeinaddini, , Zohreh Asadi-Shekari, Muhammad Zaly Shah	181
09:30	Health Benefit Modeling and Optimization of Air Pollution Control Strategies in Iskandar Malaysia	M. Rafee Majid, Nadhirah Nordin and Ho Chin Siong	182
09:45	Analyzing the Relationships between Health Damage and Socio-Economic Factors in Response with Climate Change Adaptation	Tae Ho Kim, Cheol Hee Son, Jong In Baek and Yong Un Ban	183
10:00	River Front Development: Impact and Need of Integration with EIA	Saswat Bandyopadhyay and Anuradha Adhikari	184
10:15	Human behavior in open space around spring water in a central area of Mito-city in Japan	Takayuki Kumazawa	185
10:30		Tea Break	
10:45	Regeneration Guidelines For The Neighborhoods Located In Residential Areas of Khulna City, Bangladesh: A Case Study on Housing Tin Tola	S.M Asgor Ali	186
11:00	Urban Optimum Population Scale and Development Pattern Based on Ecological Footprint Model - Case of Zhoushan, China	LU Yuan	187
11:15	Vernacular's Ecology Approach In Urban Kampong Revitalization, Case Study: Kampung Adat(Customary Kampong) Mahmud, Bandung District,West Java,Indonesia	Marcus Gartiwa	188
11:30	Protecting the Urban Perimeter by Transforming Pyroclastic Flow Area As An Opportunity for an Ecological and Adaptive Corridor	Anna Maria Katerina Asuncion and Nappy Navarra	189
11:45	An Analysis of the Ecological Structure of Pampanga and Enhancement of the Biodiversity Potential of Road Corridors in San Fernando City, Philippines	Mr. Francis E. Ong and Nappy L. Navarra	190
12:00	Strategic Planning of the Smart-Green City through Urban Governance	Kwang Hyun Yim, Min Cheol Ha, Cheol Ju Jo, Kyung-Min Han, Jong-In Baek and Yong-Un, Ban	191
12:15	Agropolitan Development Programs in Malaysia: Way Forward For Agropolitan Development in Malaysia	Yusof Ahmad, Mohd Zaki Baharudin, Hamid Saad	192

#### Track 6: Urban Equity and Authenticity (EA)

Topic 3: Urban Conservation, Cultural Heritage and Tourism Planning

Time	Title	Author(s)	Page
09:15	Capturing Actual Perceived Image of International Urban Tourist During Visitation in Kuala Lumpur	Syed Muhammad Rafy bin Syed Jaafar and Hairul Nizam Ismail	223
09:30	A Study on the Evaluation of the Three Hills and Five Gardens in Beijing Western Suburbs as Cultural landscapes	Chen Kang-lin and Qian Yun	224
09:45	Understanding Morphology in the Form of Business Expansion: Perspective of Small Tourism Firm in Coastal Resort Destination	Muhammad Hakimi Mohd Hussain and Hairul Nizam Ismail	225
10:00	Presentation and Adaptive Reuse of the Ancient Tea Plantations of Jingmai Mountain	XU Yan	226
10:15	The sustainable development of the Qiang traditional settlements spatial inheritance for the upper reaches of the Minjiang River	Meng Ying and Dai Shenzhi and Wen Xiaofei	227
10:30		Tea Break	
10:45	Conserving the Bhutanese Cultural Landscape: The Case of Rinchhending-Shari Chiwog	Nadia Abdul Wahid	228
11:00	Study on the Urban Conservation with Consensus Making by Aneyakoji Area Association	Kumi Eguchi	229
11:15	Increasing Infrastructure Access of Low-Income People in Peri-Urban Area (Case Study: Peri- Urban of Bandung Metropolitan Area)	Sri Maryati and An Nisaa' Siti Humaira	230
11:30	People Centered Conservation Its Practice and Issues of The Youth Involvement	Kusumaningdyah N. H, Akhmad Ramdhon and Punto Wijayanto	231
11:45	Conservation Planning for Cultural Heritage Complexity - From the experience of Lumbini Nepal	Tomoko Mori , Takefumi Kurose & Yukio Nishimura	232
12:00	Exploratory Case Study on Informal Cultural Cluster in Bokuto, Japan - In relation of physical features of art space and local environment	Seungmin Lee	233

#### Track 6: Urban Equity and Authenticity (EA) Topic7: Sustainable Urbanisation, Social and Cultural issues

Time	Title	Author(s)	Page
09:15	Destratifying Social Interaction in High-Rise Living	Aw Siew Bee and Lim Poh Im	235
09:30	Taipei is not My Home but My Dream: The Effect of "Urban Dream" on the Choice of Migration	Hai-Feng Hu	236
09:45	Effects of Neighborhood Built Environment on Physical Activity in Gated Communities: A Review	Yasmeen Gul, Zahid Sultan and Siti Hajar B. Misnan	237
10:00	Acknowledging Tourist Spatial Behavior for Space Management in Urban Heritage Destination	Nurul Diyana Binti Md Khairi and Hairul Nizam Ismail	238
10:15	Mobile Augmented Reality: A Tool for Effective Tourism Interpretation in Enhancing Tourist Experience at Urban Tourism Destination	Nur Shuhadah Mohd, and Hairul Nizam Ismail	239
10:30		Tea Break	
10:45	Local Wisdom In Spatial Planning As An Adaptation Form Toward The Disaster (Case Study: Naga Village In Tasikmalaya District, West Java Province, Indonesia)	Indarti Komala Dewi	240
11:00	Living with Others: The Development and Prospect of Animal Governance in Taipei	Chih-hung Wang , Yu-ting Kao, Hao- Chun Lo, Wen-Chi Yeh, Jing-Wen Chen and Chih-Lun Lin	241
11:15	Analysis of spatial organization patterns about Qiang settlements in the upper reaches of the Minjiang River and its evolution mechanism	Meng Ying and Dai Shenzhi	242
11:30	Government or Markets: Comparative Efficiency and Efficacy of Pro-Poor Housing Supply Mechanisms in India	Smruti Srinivas Jukur and Sejal Patel	243
11:45	Urban Development in The Era of ICT	Rini Rachmawati	255

### Track 3: Bridging Urban Research and Urban Policy (RP) Topic 10: GIS and IT solutions in Urban Planning

Date: 13 August 2015 Time: 09:15 to 12:30 Venue: Seminar Room 6

Time	Title	Author(s)	Page
09:15	Analysis of shrines properties using remote sensing approach: Case study of Lembah Bujang	Shairatul Akma binti Roslan, Norzailawati bt Mohd Noor and Zuraini Md.Ali	148
09:30	Towards a Resilient development: Mitigating the Environmental risk Within the Community	Nasim Yeganeh, Soheil Sabri and Abbas Rajabifrad	149
09:45	Development of a GIS-based Modeling System for Better Interchange Management in Expressways of Sri Lanka	K.G.R. Kushani and P.C.P. De Silva	150
10:00	Pin It! Evaluating Public Official Acceptance Towards Computer-based Spatial Information System	Isti Andini and Murtanti Jani Rahayu	151
10:30		Tea Break	
10:45	The Effects of R&D Activities on Product and Process Innovation in Korea	Chanyong Kim, Ye Seul Choi and Up Lim	152
11:00	Research for comprehensive and active planning method in the residential industrial area focused on Ota Creative Town Vision in Ota Ward, Tokyo	Taku Nohara, Yu Okamura, Susumu Kawahara	153
11:15	Characteristics of Open Factory in Terms of Local Revitalisation Scheme -A case Study on Ota Ward, Tokyo	Yu Okamura, Junko Toyota, Susumu Kawahara and Taku Nohara	154
11:30	Factor Analysis of Motorcycle Crashes in Malaysia	Zahid Sultan, Noor Irdiana Ngadiman, Fara Dela A.Kadir and Nuur Fathin Roslan	155

# Track 2: Urban Institutions and Governance (IG) Topic 10: Planning beyond administrative-spatial and disciplinary boundaries

Date: 13 August 2015 Time: 14:00 to 15:00 Venue: Seminar Room 1

Time	Title	Author(s)	Page
14:00	Eco-cities as an Assemblage of Worlding Practices	Zack Lee	112
14:15	Correlation Study of Community Party Walls and Migrants Population - Based on the Study of Two Community in Shanghai	Ze Zhang and Ying Gu	113
14:30	Appropriate Urban Livability Indicators for Metropolitan Johor, Malaysia via Expert- Stakeholder Approach: a Delphi technique	Dario Gallares Pampanga, M. Rafee Majid, and Foziah Johar	114
14:45	Research For The Shelter Planning Based On Self-Saving In Urban Residential Districts	Buri Qi and Shenzhi Dai	115

## Track 2: Urban Institutions and Governance (IG) Topic 5: Critical Issues in Urban Development

Date: 13 August 2015 Time: 14:00 to 15:00 Venue: Seminar Room 2

Time	Title	Author(s)	Page
14:00	Dhaka: An Example of Landuse Succession Where Market Forces Supersede Planning Controls	Fawzia Farzana and Nurul Islam Nazem	116
14:15	Liveability planning for cities: within the Islamic framework of maqasid al-syari'ah	Norimah Md.Dali, Alias Abdullah and Azila Ahmad Sarkawi	117
14:30	Work Capacity of Labor, Regional Impacts, and Climate Change	Junbeom Lee and Donghyun Kim	118
14:45	Climate Change and Spatial Inequality of Vulnerable Labors in Korea	Heonyeong Lee and Donghyun Kim	119

## Track 4: Soul-searching Planning Education (PE) Topic 1: Towards an Asian Planning Education

Date: 13 August 2015 Time: 14:00 to 15:00 Venue: Seminar Room 3

Tin	ne	Title	Author(s)	Page
14	:00	The Meaning of technopole in development of innovation and regional in Indonesia	Nimas Maninggar	162
14	:15	Ethical dilemmas in Planning Practice and role of Planning Education in India	Prakash Poonam	163
14	:30	Interdisciplinary and International Collaborative Learning Program Development on The Theme of Tourism Development And Community Planning in Asia Region	Kumi Tashiro, Denis Yu-Long Wang, C. David Tseng, Chi-Yi Chang, Eric Chuang and Leslie Shih	164
14	:45	Planning Education in Malaysia: Meeting Local Needs and International Challenges	M. Taufek, A. Razak Jaffar and Norsiah A. Aziz	165

#### Track 2: Urban Institutions and Governance (IG)

Date: 13 August 2015 Time: 14:00 to 15:00 Venue: Seminar Room 4

Time	Title	Author(s)	Page
14:00	Governance for Earthquake Disaster Preparedness in Kathmandu, Nepal	Bhishna Bajracharya	253
14:15	Urban Transformation under Metro Railway Development in Hong Kong	Bo-sin Tang	254
14:30	A study of Use of Tradisional Market: Peunayong Heritage Site of Banda Aceh	Irin Caisarina and Muftiadi	120
14:45	Online City-evaluation and Participation Platform Involving Governments, Citizens, Planners and Developers by Crowdsourcing Method	Xia Nankai and Cheng Shang	121

Track 1: Urban Planning and Design Challenges (PD)

Date: 13 August 2015 Time: 14:00 to 15:00 Venue: Seminar Room 5

Time	Title	Author(s)	Page
14:00	Understanding the pressure on agriculture land as a safeguard for food security in Malaysia	Muhammad Uzair Azizan and Khadijah Hussin	81
14:15	Three Sustainability Advantages of Urban Densification in Present Urban Form: Evidence from Bandung City, Indonesia	Ariva Sugandi Permana, Norsiah Abd Aziz, Ho Chin Siong	82
14:30	People Centered and Initiative For The Sustainability of Urban Kampung: Case Studies of Surakarta, Yogyakarta And Semarang City	Kusumaningdyah N. H, Hardiyati, Akhmad Ramdhon and Lia Sparingga	83

### **ABSTRACTS**

#### **Keynote Speakers**

### Keynote Presentation by YBhg Prof Datuk Ismail Ibrahim: ISKANDAR MALAYSIA BEYOND ASIA

Just as "Malaysia Truly Asia" has been a widely recognised branding mantra for the Malaysian tourism industry, "Iskandar Malaysia Beyond Asia" can become a guiding maxim towards Iskandar Malaysia achieving its vision of a strong and sustainable metropolis of international standing by 2025. Like all great cities, the foundation for this was actually laid from the founding of the modern Johor Sultanate itself back in the 19th century. This also marked the founding of Iskandar Puteri, the original nomenclature for Johor Bahru city now revived as Iskandar Malaysia, the economic region. In this latest chapter of the local history, the forward-looking tradition continued and planned with sustainability in mind. Since 2006, Iskandar Malaysia has steadily grown into the global scene as an investment destination of choice, weathering global economic storms along the way. What are the key success factors that will bring Iskandar Malaysia closer to its vision? Will it become not just the next metropolis in Asia, but even beyond Asia to become the next world city of Asia? This presentation will provide some insights for the audience to form their own opinion accordingly, in line with the congress theme of Towards an Asian Urban Agenda.

## Keynote Presentation by Prof. Dr. Trevor Sofield: BEYOND BILBAO, 'GUGGENHEIMING' AND 'STARCHITECTURE' - FINDING 'PLACE ATTACHMENT' IN CITY-SCAPES

Urban planning is much more than architecture, and while monumental buildings have always had their place, in this age of globalization we sometimes end up with visually spectacular buildings that owe little to the culture in which they have been sited. In addition they may be so grand as to be 'de-humanizing', and while citizens may take civic pride in an outstanding piece of architecture/art which may also become a 'signature image of a city' in terms of its brand, such buildings are sometimes bereft of a capacity to become personally meaningful to the people who live and work and play in the spaces around them. Sometimes in fact they repel, and the spaces around them are empty. This paper explores aspects of place-making and place attachment which seek to positon people at the centre of urbanscapes in contrast to the 'Guggenheiming' impact of some 'starchitecture'.

## Keynote Presentation by Prof. Dr. Amran Bin Hamzah: THE ASIAN PHILOSOPHY OF RESOURCE MANAGEMENT AND ITS IMPLICATIONS ON CONTEMPORARY URBAN AND REGIONAL PLANNING

Asia is both huge and plural but yet share the same development philosophy of harmony between humans and nature. Perhaps forced upon by the fragility and hostility of the natural environment, countries and communities in Asia have traditionally recognised sacred natural sites created out of reverence and respect for physical elements such as mountains, forests, rivers, ponds etc. that are believed to contain spirits. It is common belief across Asia that bad things would happen if these abodes for spirits and the surrounding forests are removed or encroached upon. Lately countries in Asia have been rediscovering their traditional approaches to resource management, ancient wisdom and traditional knowledge such Satoyama/Satoumi, Tagal, Subak and Kattudel. At the same time, the appropriateness of colonial models of development and resource management inherited by Asia are being questioned. Out of this contestation, a convergence between these polar opposites is slowly emerging through contemporary planning approaches such as adaptive management and resilience planning. This paper will, firstly, present an overview of the Asian philosophy of resource planning. Based on a case study in Kinabalu Park, Malaysia the second part of the paper will examine the relevance of sacred natural sites and the Tagal system of resource management in the contemporary world. Finally the paper will present the challenges and prospects of incorporating the Asian philosophy in the curriculum and syllabus of planning schools as well as in planning practice in Asia.

#### **NOTES:**

All abstracts in the program booklet are presented as per received from the author(s) of full papers.

Due to printing deadline, only abstracts of full papers that have been received up to July 30, 2015 are included in the program booklet.

#### TRACK 1: URBAN PLANNING AND DESIGN CHALLENGES (PD)

# NMT as Green Mobility Solution for First/Last Mile Connectivity to Mass Transit Stations for Delhi Chidambara<sup>1</sup>

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#### **Abstract**

The objective of this paper is to examine the role of non-motorised transport (NMT) as green mobility solutions in improving the last mile connectivity (LMC) to mass transit systems. There are evidences of its growing significance, which is established through various international experiences, and case studies. The paper discusses transport policies for Indian cities with respect to LMC, NMT and transit systems and their interface. The paper also presents the empirical findings of a study on NMT usage as first/last mile options for a few metro stations in Delhi, India. It analyses metro user characteristics and choices for the selected stations with a lens on NMT usage for covering the last mile. It is observed that NMT comes out as the most preferred option for covering the first/last mile to transit systems, despite the challenging situations under which NMTs operate. The study further points out that the type of NMT mode availed by commuters varies with varying situational context and depends on locational and user attributes. It is interesting to note that while introduction of "bicycles on hire" worked very well at a particular station, the same had no takers at another. The paper contends that resorting to standard solutions for LMC may not be the right approach; rather it must be based on user and other contextual analysis. The paper concludes with outlining a holistic policy approach that treats NMT planning as a non-negotiable component of transit planning to achieve higher ridership (for the transit operator), better journey experience (for the commuter) and larger sustainability goals.

**Keywords:** Non-motorised transport (NMT) planning, green urban mobility, last mile connectivity, mass transit connectivity

## A Theoretical Overview of Road Hump Effects on Traffic Speed in Improving Residential Living Environment

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#### Abstract

This paper is part of an ongoing study to analyse the effectiveness of road humps as a traffic calming measure in improving the residential living environment. Concerns have been raised that high traffic speeds impact neighbourhood liveability; therefore in order to discuss the effectiveness of road humps in improving the Malaysian residential living environment, a review has been conducted on various literatures concerning the effects of road humps on vehicle speeds. Some of the major findings from the literatures are that the vehicle's operating speed is affected by the spacing in between a series of humps, though the recommended spacing differs in various literatures. An incorrect hump profile will also decrease the hump's effectiveness and potentially result in passenger discomfort and vehicle damage. In addition, the road hump design is the key point in a hump's effectiveness in reducing 85th percentile vehicle speeds; however care must be taken in ensuring that the hump profile and spacing does not only cater for reduction in speeds but also addresses the numerous concerns resulting in reduced manoeuvrability for buses and emergency vehicles. More research needs to be carried out to test the effectiveness of current schemes in Malaysian residential areas as the existing installations are mainly on an ad-hoc basis.

**Keywords:** Road humps, Traffic calming, Traffic speed, Living environment, Malaysia

## Sustainable Pedestrian Ways in CBD of Tunjungan Surabaya: How New Urbanism Principles Can Be Realized?

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#### Abstract

Pedestrian ways of Tunjungan which is known as Central Business District is an important accessibility element in Surabaya, According to Guidelines for the Provision and Utilization of Pedestrian Infrastructure and Facilities in Urban Area (2014), pedestrian ways is important component that should be provided for increasing effectiveness of citizen mobility in urban area. In general fact, pedestrian ways of Surabaya is in good condition. In 2007 Surabaya has received Wahana Tata Nugraha Award from The Ministry of Transportation. It has been avowed that pedestrian ways of Surabaya is first ranked of 20 cities in Indonesia (Detiknews, 2007). However pedestrian ways in Surabaya especially in Tunjungan district frequently misused (Kompas, 2010). That condition shows unmaximize use of pedestrian ways in this district. Walkability explains and measures connectivity and quality of pedestrian ways in cities in order to make a walkable city. The synthesis theory between new urbanism and walkable city created five parameters such as safety and comfort, attraction, walkability and connectivity, and mixed land use. Furthermore, how to conduct these principles to realize the sustainable pedestrian ways at CBD of Tunjungan will be explained in this study. This study is approached by descriptive analysis and rationalistic method and also critical reviews to relevant references are applied toward comprehensive explanation. This study will focus on LOS (Level of Service) to determine walkability in Tunjungan. Hereafter, value ranking of this LOS and what solution should be done will be confirmed to an expert. Finally, the concept of walkable city will be determined based on solution of LOS characteristic. Expected output in this study is alternative concept of sustainable pedestrian ways. It will be influenced by factors which are decided by some stakeholders.

**Keywords:** new urbanism, sustainable pedestrian ways, walkable city, CBD of tunjungan

#### Does A Compact City Promote The Pedestrian Safety?

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#### **Abstract**

Hypothetically, a compact city form decreases Vehicle Miles Travels (VMT) and the reduced VMT indicates lower exposure of pedestrian crash. The evidences of empirical studies, however, have shown a mixed findings. We speculate that the mismatches between theory and empirical evidences may be caused by the spatial scale of study areas, focusing on spatial distribution feature of job and housing density. To explore the relationship between compactness of the built environment and pedestrian crash, we conducted regression analysis at both city and neighborhood scale. For the city level analysis, we used pedestrian accidents data reported from 2007 to 2013 in Korea at city level. At the neighborhood scale, the pedestrian crashes occurred in Seoul between 2010 and 2011 was used. The results showed that the association between compactness and pedestrian crashes varies by the spatial scale of study areas. At the city scale, the compactness does not have a significant association with pedestrian safety, whereas, at neighborhood scale, density of employment was associated with greater risk of pedestrian crash while population density was negatively associated with pedestrian crashes. The finding implies that the spatial distribution of housing and jobs do an important role in pedestrian safety.

**Keyword:** Built environment, compact city, pedestrian safety, traffic crash, neighborhood

### A Model for Assessing the Level of Walkability in Urban Neighborhoods in Sri Lanka

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#### Abstract

The quality of the neighboring environment plays a major role in encouraging people to walk when attending their daily needs. Although past studies have identified a relationship between neighborhood design factors and the level of walkability, this interdependence is poorly understood in urban planning in Sri Lanka. The purpose of this study is to determine factors and conditions that influence walkability in a selected neighborhood in the town of Panadura and develop a model to predict what design factors enhance walkability in the neighborhood area. Ninety three (93) factors that affect the walkability in urban neighborhood were identified as the findings of the literature review of this study. Seventy six (76) walkability factors identified through perception surveys were examined within a 100m radius of 70 buffered circles representing 140 participants' residences through a questionnaire survey and field observations. Chi-square and Bivariate correlation analysis were carried out to identify the most decisive factors for walkability. Multiple Regression analysis was applied to develop a model to assess the level of walkability of residents in the selected area based on the most significant factors. The study has identified main nine variables that determine the level of walkability. Based on the significant values the model can be used to assess the level of walkability of the people in Sri Lankan context.

**Keywords:** Factors of built environment, Neighborhood, Walkability

### Exploring the Implementation and Success of Green Urban Mobility in Asian Cities

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#### Abstract

Urban population is rapidly increasing at the rate of 1.83% worldwide. Asia and Africa are the most urbanising regions in the world. Today, 15 of the 27 largest cities in the world exist in Asia. Moreover, Asian urban population is predicted to exceed the rural population by 2022. Urban population explosion is accompanied by rise in auto-mobile ownership which imposes adverse environmental, economic and social impact in cities. This generated global concern and interest for creating healthy, liveable, sustainable, and friendly environment in cities. Green Urban Mobility is envisaged as the best approach to promote sustainable and environmental-friendly transportation in modern cities. Although cities are grappling with a host of transportation problems, tremendous efforts are underway to curtail its consequences by ensuring sustainable mobility. This paper review the current urban transport problems in Asian cities, highlight the ongoing effort towards ensuring sustainability of green mobility, and explore success of the policies and challenges facing the process. The study exclusively relied on secondary data and critical review of related literature. The study found that urban transport problems such as increase in car ownership, traffic congestion, energy consumption, air pollution, fatality, health hazard and environmental degradation are becoming worst in cities. It is also found that efforts are in place to reduce car footprint, ensure transport management and promote green transportation in the cities. The global overall average score of cities is estimated at 43.9%, while Asia-Pacific cities have 42.8% average score of green mobility performance. The challenge green mobility system is facing in Asian cities includes fragmented management system, lack of clear vision and strategy for the system, inadequate infrastructure and low integration of regional mobility system among others. It is recommended that integrated and coordinated approach should be embraced and applied towards promoting sustainable green mobility in our modern cities.

**Keywords:** Asian cities, Transport impact, Green mobility, Challenges, Sustainability

# Parking Management towards Populated Areas: Spontaneous Renewal of Parking Space in Lilong of Shanghai Sun Yuman<sup>1</sup>

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#### Abstract

With the nowadays development of automobile industry and the acceleration of urbanism, the problems arising from the gap between demand and supply of parking spaces are becoming increasingly acute in most towns and cities. Metropolitan cities in China, headed by Shanghai, are facing serious parking problem. Although planning departments has been challenged to find solutions for this problem, they are confronted by the reality of complex social-spatial systems. The self-organisation and spontaneous renewal in the process of parking space transformation in Lane 569, Xinhua Road, Shanghai has showed possibility to solve the problem. Coopertation between residents and local authorities, such as the neighborhood committee. Central to the paper is the study of the spontaneous renewal process and the flexible parking management methods used in the context of space and human resource scarcity. New approaches stimulating the bottom-up planning and legal frameworks and rights that allow for such new approaches are also discussed. The paper starts from the flexible means of transformation and renewal used by residents and local governments, following by how they cooperate to deal with the space scarcity and the role superior government plays in the process; finally end up with how to popularization the methods and to ensure the feasibility in other places. The results highlight the effectiveness of the proposed approach in providing flexible and reliable solutions for challenging questions that face Asian urban planners and local transportation jurisdictions.

**Keywords:** Transportation planning, Spontaneous Renewal, parking space

### Urban Transport Disadvantage in The Cities of Islamabad / Rawalpindi, Pakistan

**Muhammad Adeel<sup>1</sup>, Anthony G.O Yeh<sup>2</sup>, Zhang Feng<sup>3</sup>**Department of Urban Planning and Design, Hong Kong University

#### Abstract

Public transport forms an important component of accessibility in the country as more than half of population is dependent on it for their daily mobility needs. This paper discusses preliminary findings on three major components of urban transportation disadvantage in the Greater Islamabad/Rawalpindi Area (GIRA), i.e. Availability, Affordability and Quality. Data on public transport fare, route network and vehicle models were collected from primary and secondary surveys in December 2013. On access to public transport network, GIS analysis shows that public transport is accessible to more than 95 % Pindiwals and only 57% Islamabadis within 10 minutes' walk (800 m). However, bus/minibus covers only 30% population while the proposed BRT network covers just 10% Islamabadis and 38% Pindiwals within this distance. On affordability, laborer population may spending anywhere from 8 to 20 % of their real monthly waaes on work commute as compared to approximately 5% spending by higher income groups. On quality, more than half of Wagon and Suzuki fleet is at least a decade old and a quarter of the total fleet is more than 2 decades old. Social groups seriously affected by these issues include, women in general and adult female in particular, students, elderly and low income households that make majority of the city's total travelers. Appropriate role of town planners in this scenario and some appropriate changes in the urban transport policy are suggested in order to facilitate urban mobility and stem the negative effects of transportation disadvantage in the study area.

### Subdivisions in Iskandar Malaysia: Do Their Designs Encourage Increase in Travel Carbon Emissions?

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#### Abstract

This study looks into the travel impact of distribution of housing densities within a subdivision on local travel patterns within neighbourhoods of Iskandar Malaysia. The goal of this study is to investigate the relationship between these distributions of housing densities and travel carbon emission in Iskandar Malaysia. It attempts to show how the location of various housing densities (high density, medium density and low density) with respect to commercial centres affects the residents' travels, thus affecting carbon emission too. This study involves over three hundred subdivisions in Iskandar Malaysia. The housing densities were determined through ArcGis software while CommunityViz software was used to determine the amount of travel carbon emission. The findings indicate that most of Iskandar Malaysia's subdivisions do not meet the preferred design standards for carbon reduction and can contribute to higher carbon emission. The design of these subdivisions focuses more on its gesthetic aspects rather than being functional and sustainable. However, this is only looking at the travel minimisation aspect of the design though it is not a minimal aspect itself.

**Keywords:** Iskandar Malaysia, subdivision design, Community Viz, travel carbon emission

# An Evaluation on Tourist Destinations and the relationship with the Transportation System in Jakarta, Singapore and Kuala Lumpur Priyendiswara Agustina Bela

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#### Abstract

Urbanization has been predicted to become a phenomenon of the 21st Century with the world facing economic uncertainties, on the other side, however, this century has been touted as the Asian Century. This statement raise the question of how Asian economy has performs so far? This is in particular applicable in the contexts of City Planning, where economic consideration is of significant importance. In order to address the above question, this paper present the result of a study on the relationship between the tourist destinations and the transportation system in Jakarta, Singapore and Kuala Lumpur. The purpose of this research is to know, how well the preparation of the city in Asia toward the 21 st Century, by looking at the tourism activities as one of the income sources of a city or region, which ultimately will also contribute to the economic growths of a nation. The study was performed by looking at all of the tourist destinations in Jakarta, Singapore and Kuala Lumpur, that are determined based on the theory that was written in The book of Tourism Planning an Integrated and Sustainable Development Approach by Edward Inskeep in 1991. All of these destinations is mention shown on the city Map of those three (3) cities, by using GIS software. The same method is employed for the transportation system. These two (2) GIS Maps are layered to facilitate the identification of the connection between the tourist destination and the transportation systems. Based on the analysis of the layered maps, these cities are cathegorized for their preparedness in facing the 21st Century. The result of this study is expected to provide information and alternative solutions to stakeholders who are involved in the tourism business and the government of Jakarta, especially to the urban planning division. Lastly, the findings could also enriched the knowledge in Urban Planning for education.

**Keywords:** Evaluation, Tourist Destinations, Transportation System, Jakarta, Singapore and Kuala Lumpur

## Implications of Sprawled and Compact Development on Mobility Patterns: A Case-study of Bhopal, India

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#### Abstract

Cities across the world are witness to increasing phenomenon of urban sprawl. In this era of resource scarcity, where food security and depletion of resources is topic of concern, and the world needs to produce more food to feed 9 billion people by 2050, it is imperative to address and control sprawls. Sprawl affects mobility in terms of increased dependence on private motor vehicle which is high in energy use and carbon emissions. In order to address these challenges, a paradigm shift in land use and transport planning is the need of the hour. The paper examines the role of land use planning, zoning regulations and urban form in reducing per capita use of energy resources through encouraging more sustainable mobility. The study focuses on urban development of Bhopal city (India) which has sprawled over years. The paper is based on primary investigation of three case areas (neighborhoods) in Bhopal city, the first two lying within the city but in varying contexts and the third area outside the present city limits which can be classified as a sprawl. The analysis throws significant light on how the mobility pattern changes with areas having more compact development vis-à-vis those which have developed as sprawls and with lower densities. The study finds that densely populated areas having mixed use has higher share of walk (50%), especially for work and education purposes whereas low dense and single use zone areas have major share of motorized trip. Average trip length also increases from higher density areas to low density areas in sprawls. The study recommends modifications in zoning regulations and builds up a scenario for sustainable mobility patterns through a more compact development of the city.

**Keywords:** urban sprawl, sustainable mobility, land use planning, zoning regulation, travel behavior

## Blending Transit-Oriented Development (TOD) and Heritage: Case Study of Kota Tua Area, Jakarta

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#### Abstract

Kota Tua area once was the center of Batavia (Old Jakarta) during the Dutch occupation. Literally meaning "the Old City", Kota Tua has a legacy of heritage buildings and ambience dating since 1640, thus being popular as one of the prominent tourism destinations of Jakarta. In the Jakarta 2030 master plan, the area is categorized having a preservation function, as a cultural-preservation area. Among the features of Kota Tua is the Kota station where commuter trains connect the area to other parts of Greater Jakarta and long-distance trains connect to other parts of Java. Besides, there is also Kota bus terminal which is the terminus for Corridor 1 of Trans Jakarta BRT. As a hub for many public-transportation routes, together with its availability of vast public space, Kota Tua has a potential to adopt the concept of Transit-Oriented Development (TOD). This research aims to understand to what degree Kota Tua comply with the concept of TOD and to understand the aspects of TOD that should be improved in order to further promote Kota Tua as a tourism heritage district. This research is conducted through literature study, direct observation, questionnaire survey, interview and Path Analysis. The research shows that the mixedused pedestrian-friendly environment at the area encourages people to walk and use non-motorized transit but there is still lack of connection to the public transportations accessing the area. In addition, there are plenty opportunities for revitalization of old buildings at the area which is now at poor state. As a conclusion, the implementation of TOD at heritage stationareas can revive and rejuvenate the area, moreover if there is a simultaneous connection between the area and its surrounding transit network. Therefore, it is important to improve not only the station-area, but also to build clear access and connectivity with the city transit network.

**Keyword:** Transit-Oriented Development (TOD), heritage, station-area, Jakarta Kota

## Evaluating Significant Factors That Influence Public Transport Usage In Kerman (Iran)

Azin Bahreini<sup>1</sup>, Hamed Mirzaei<sup>2</sup>, Mehdi Moeinaddini<sup>3</sup>, Zohreh Asadi-Shekari<sup>4</sup> and Muhammad Zaly Shah<sup>5</sup>

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#### Abstract

Although public transport is recommended to develop a sustainable transport system, the percentage of daily trips by public transport in Iran specifically in medium sized cities such as Kerman is very low. Currently, efforts are being made to indicate significant factors that prevent public transport usage in developed countries but few studies have been conducted in developing countries. Only a few studies have considered public transport usage in Iranian megacities and medium sized cities such as Kerman require more attention. Therefore, this study tries to identify effective factors that influence public transport usage in urban areas in developing countries like Iran and in medium sized cities like Kerman. In addition, this study tries to investigate various ways to increase public transport ridership. The people awareness regarding benefits of public transport usage is also tested in this study. This study uses questionnaire and observation to collect data. The descriptive analysis based on the collected data shows that most of the people are aware of public transport benefits. These benefits include environment protection, reduction in parking demand and traffic congestion, lower travel cost (compare with private vehicle), fewer mental stresses, more safety, and being more convenient. Although people are aware of public transport benefits, there are some issues that prevent them to use public transport properly. Insufficient information about public transport schedules, lack of attractive facilities and suitable waiting stations and inadequate reliability are examples of issues that discourage people to use public transport. The results show that some improvements such as providing suitable information about public transport schedules, considering comfortable facilities to increase attractiveness, improving waiting facilities and reliability can encourage people to use public transport.

**Keywords:** Public transport; medium sized cities; developing countries; suitable and attractive facilities; public transport benefits; public awareness

## Landscape Relieve for Urban Design: Rejuvenating Baranangsiang Terminal, Bogor, Indonesia

Rezky Khrisrachmansyah<sup>1</sup> Candraningratri Ekaputri Widodo<sup>2</sup> and Cindy Aliffia<sup>3</sup>

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#### Abstract

Bogor City is one of the oldest and large cities that form the Greater Jakarta. Designed initially as a garden city, Bogor City has increasingly become a popular tourist destination during weekends and holidays. Unfortunately, the city is experiencing congested and chaotic traffic, even at the gate of the city which is the Barananasiana terminal area. Baranangsiang terminal is the city's main bus terminal which accomodates numerous routes for both inner-city and inter-city public transportation. Nowadays, Baranangsiang terminal is undergoing a degradation of space quality: its area is unorganized, rundown, lacking open green space, making it uncomfortable for users and unsupportive for the image as gate of Bogor City. Therefore, a comprehensive and integrated terminal area management is needed. This research is aimed to provide inputs for Baranangsiang terminal area design that is functional, aesthetic, without neglecting the characteristics of Bogor City and can enhance the image of Bogor City as a whole. The existing condition and the development plans of the terminal area are analyzed in this research. The approach of this research is through landscape relieve in urban design: terminal-area revitalization approach is conducted through landscape approach which puts into consideration the biophysics, land-use and vegetation aspects, integrated with building, architecture, accessibility and transportation system of the terminal, together with social aspect. It is hoped that Baranangsiang terminal can be rejuvenated into an organized and accessible terminal area, become a city icon, enhance the city image, pedestrian friendly with comfortable greenery.

**Keywords:** Terminal area, landscape relieve, Urban Design, city image, rejuvenation

## A Framework For Financing Metro Rail Infrastructure Through Land Value Capture Mechanisms: Case Of Jaipur

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#### Abstract

The success of the Delhi Metro Rail in India has inspired many cities to propose metro rail as mass transport solution to overcome the issue of urban transport, in India. More than ten cities including Mumbai, Kolkata, Jaipur, Bangalore, Ahmedabad etc. have proposed metro rail and are in various stages of implementation. Investment required for the Mass Rapid Transit (MRT) projects is in the range of USD 1500 million to USD 5000 million depending on city size. It is quite obvious that Indian Urban Local Bodies (ULBs) are hardly able to generate resources to finance such a large capital investment. Even after the assistance from Federal and State governments and loans from donor agencies, the balance fund is also difficult to be raised by the ULBs. In such a context, ULB need to innovate urban planning tools and mechanism to generate the funds required. This study explores how Additional Development Rights (ADR), can be used as a mechanism for value capture in case of Jaipur city, where a metro rail has been proposed at a total cost of USD 1650 million. Our study clearly highlights that within a scientifically defined influence zone of the metro rail, the sale of ADRs can finance a substantial component of the metro infrastructure Capital, in this case about 60 %. Study also show how this framework is mainstreamed into the Development Plan and development control regulations for ensuring compliance. Thus the paper will discuss the "guidelines for land development mechanisms" along the corridor to capture the price escalation in real estate through ADRs by taking a case of Jaipur City (capital of state of Rajasthan).

**Keywords:** Land Development mechanism, Value Capture mechanism, Land financing infrastructure, Influence zone, Mass Rapid Transit System

### Model of Spatial-Transportation Interaction in Makassar City - Indonesia Umar Mansyur

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#### Abstract

Growth of Makassar City as Mamminasata Metropolitan Area besides increased urban economic and social community change especially of the intense-city or complex-city with land-use, it also caused problems that public passenger transport management policy is not integrated with urban spatial planning policy as one unity and uncertainty. Paper objectives were to design of urban transportation integrated with urban spatial planning modelling with use Model-Spatial Interaction Transportation (Lowry) as the development of the Gravity Model and Economic Model Base. Paper research methods consist in studying the interaction of transport with land use aimed at determining the urban structure is based on the city's economic activity and movement of city dwellers are strongly associated with the development of the transportation system and development trend of the city with different supporters of population in the study area is the area within the city (District of Ujung Pandang as regional representation of the central zone with retail sector function for trade and services is zone one, District of Panakkukana or the transition zone with the residential sector function for housing/shelter is zone two, and District of Biringkanaya or the periphery zone with the basic sectors function for industry and services is zone three). The results were: (i) Total number predicted results of service sectors is 25.351 peoples from the zone one, two, and three or the average relative increase by 36 to 50 percent within the District of Panakkukang increased 1 percent of the real conditions; (ii) Results of prediction of total sector is 65.781 peoples from the zone one, two, and three or the average relative increase by 36 to 50 percent and increased Panakkukang District is 3 percent; and (iii) The total population of the labor force was 99.786 peoples predictions with details from the zone, two, and three or the average relative increase of 30 to 50 percent and the District of Panakkukana increased 6 percent.

**Keywords:** integrated, sector, labor

### Spatial Arrangement of Coastal Sama-Bajau Houses Based on Adjacency Diagram

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#### Abstract

This research studies the diversification of space distribution in selected Sama-Bajau dwellings along the north coast of Sabah: Kudat and Pitas; and east coast of Sabah: Mabul Island. This study investigates the frequency of spatial arrangements in Sama-Bajau coastal houses as a preliminary step in understanding their ideal home based on the existing socio-culture and economic practice. Adjacency Distribution Diagram by Mushtaha et al (2011) is used for simpler and compact visual diagram that explains the space distribution in each house attended. This paper is exploratory and applies a qualitative method. This study suggests that the spatial distribution amongst coastal Sama-Bajau consists of Dynamic interconnectivity (Type A), linear configuration (Type B), Anarchy configuration (Type C and D) and Modernist influence (Type E). The frequency of given types is found to weighs more on Type B, which is a linear configuration from the entrance towards guest area and ending up to the living area.

**Keywords:** Coastal dwellings, Sama-Bajau, Spatial distribution, Frequency, Adjacency Diagram

### Kampung as Urbanism: A Theoretical Approach Wahyu Kusuma Astuti

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#### Abstract

Understanding space as a dynamic, ambiguous, multiple, and political, this paper presents a contentious urban political landscape where the disjuncture of 'formal' and 'informality' materialises in a conflictual and counter-politics discourse between the marginalised and privileged. Urban insurgency emerges henceforth as a response to the unequal power relation between actors and attempts at reframing the political participation of the marginalised. Bringing the case of the enigma of tourism industry in Yogyakarta, this paper elaborates how kampung mobilisation, namely Jogia Ora Didol and Jogia Asat, also particularly through creative celebration of criticism, is able to create a new discourse towards a more socio-environmentally just city. These insurgences emerge as a critics to exploitative and destructive activities of hotel and property industries in the city which lead to displacement and appropriation of resources, creating an unequal political landscape by disabling particular groups in accessing resources such as land and water. 'Kampung as urbanism' here is presented as an attempt to introduce the potential of kampung being integrated into political realm of urban planning through reframing the informality and bridging the political dialogue between actors in increasing the living quality of kampung and the city as a whole. Kampung mobilisation has created a new imagination and possibility of how urban planning could be more inclusive in the future and be directed to socio-environmental justice principles such as recognition, participation, and re-distribution of welfare (Fraser, 1996; Young, 1990).

**Keywords:** kampung, insurgent planning, socio-environmental justice

## Monitoring the Performance of State Structure Plan in Delivering Output Using Dynamic Model

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#### Abstract

Plan outputs are the material objects that are tangible and provided as a result of the implementation of a development plan. They often act as precursor to achieving plan outcomes. Therefore, it is important to monitor the performance of plan in delivering its outputs so that the prospect of achieving its outcomes remains high. However, present state structure plan monitoring programmes focus mostly on monitoring land use change and not plan output delivery. The absence of output monitoring reduces the usefulness of the programmes and contributes to under-provision of outputs, especially public facilities and open spaces. This study proposes that state structure plan monitoring programmes must include mechanism to monitor the performance of the plan in delivering plan outputs. To this end, a dynamic model for monitoring performance of state structure plan in delivering open spaces was developed using STELLA software and applied on the Selangor State Structure Plan. The model simulation showed that the Selangor State Structure Plan has performed poorly in delivering the open spaces where their provision has not conform to the plan's targets. The model simulations also show that this non-conformances will remain by the end of the plan's planning period.

**Keyword:** plan monitoring, plan performance, plan output, dynamic model

#### Urban Renewal Guidelines for Revitalizing Diversity of Central Business District: A Case Study of Silom Area

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#### Abstract

Implemented by many highly accredited urban planning theories, The ideas of "diversity" have been gradually developed as a tool to solve urban problems, both socially and economically. According to Jane Jacobs's insights about how diversity revitalizes local economy and community vitality including four criteria of urban diversification methods: Asian cities are more likely to have those benefits. Diversity is considered as a phenomenon and ubiquitous characteristic of Asian urbanism, especially East Asia and Southeast Asia. These regions, with spontaneously heterogeneous collection of urban ingredients, are acknowledged as the most dynamic and diverse places in the world. A vigorous mixture of multicultures and ethics, various social and economic activities: all of which are still flourishing there and playing an important role as a regional identity. The study on diversity in urban literatures nevertheless is understudied, particularly in terms of physical design aspect. How to organize and revise an unplanned living environment and its complex configurations in order to enhance social and economic vitality: Consequently, the investigations on various types of spatial diversity characteristic and existing activities initiates "Diversity index": including six diversity criteria, development guidelines and protocols for downtown revitalization in Silom area, a central development district of Bangkok, Thailand. Furthermore, these guidelines will provide some other inner-city commercial districts an opportunity to maximize its economic capacity and elevate Bangkok's global competitiveness over a number of Asian metropolises.

**Keywords:** Urban Diversity, Urban renewal, Revitalization, Central Business District

### Implications of Iskandar Region Development to the Commercial Activities in Small Towns

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#### Abstract

Based on the National Physical Plan (2005), Johor Bahru has been identified as one of conurbation Regional Growth. Therefore, in mid-2005, the Government of Malaysia together with the Johor State Government have established an economic development region known as South Johor Economic Region (SJER). This area covers three main areas in the state of Johor and is governed by a five (5) of the Local Authority Iskandar Regional Development Authority (IRDA) is an agency which was established by the government and acts as a coordinator and facilitator for development in South Johor Economic Region (SJER) or now known as Iskandar Development Region. In the Comprehensive Development Plan, there are (5) five Flagships proposed to achieve the vision and goals of Iskandar Malaysia Regional Development. The proposal is seen Flagship will give major impact to the development of commercial activities, especially those located in the Iskandar Development Region. Therefore, this study was conducted specifically to assess and explain the implications of Iskandar Regional Development in the changes of commercial activities at small towns like Gelang Patah and Masai. Therefore, the initial observation method must be used to describe the initial implications for this study.

**Keywords:** Urban And Regional Planning Impact, Iskandar Regional Development Impact, Small Town Impact by Iskandar Regional Development.

## The Economy-Based Urban Regeneration Plan In Korea: Implications And Limitations Through The Progress Of Incheon's Challenge

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#### Abstract

The concept of 'Urban regeneration' has already become a global trend in many major cities and nations including Korea. In 2013, Korean government enacted "the Special Act on the Promotion and Support of Urban Regeneration" and implemented a national urban regeneration program based on the legislation. The program largely consists of two particular types of business by its principal objectives; the Economy-based urban regeneration and Neighborhood-based urban regeneration. Between these two detailed programs, the type of the Urban economybased urban regeneration which the original concept of urban regeneration support program in Korea aims more than a mere renewal, allied to which has been a strategy of targeting regional business and industries, by adopting new model of them on nation's core facility site, such as the extensive sites for airport, railway, harbor, and industrial complex. Incheon metropolitan city, South Korea, had a try at the first National competition project last year but failed to be selected, attempts to prepare a new urban economy-based urban regeneration type plan. This study addressed the meaning of the economy-based urban regeneration and the empirical implications and limitations from the case of Incheon. These implications are: First, the program is now evaluated as a new attempt in respect of the possibility to introduce new wide sites into highly developed cities. Second, since the law has no specific regulations about land owners-government authorities yet, a debate for urban regeneration plan depends practically on a political decision-making. Third, the program fundamentally based upon the premise of privatepublic cooperative planning, the combination of urban regeneration agenda and business-based private rules have possibilities to generate a type of social conflicts.

**Keywords:** Urban regeneration, Urban and regional planning, National support system

### Revisiting Concept of 'Smartness' for Indian Cities and Beyond Uttam K. Roy<sup>1</sup>, Piyush Soni<sup>2</sup>, Udit Sharma<sup>3</sup>

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#### Abstract

In India, the concept of 'smart cities' has been envisaged on the basic framework (employment, quality of life and sustainability) four pillars (Government of India). Those are 1) social Infrastructure, 2) Physical Infrastructure, 3) Institutional infrastructure and 4) economic infrastructure. Government of India has taken policy to develop 100 smart cities and there after develop another 500 cities as the future smart cities. The policy for 'smart cities' in India seems to be futuristic, contemporary and attractive in taking the urbanisation in a global standard. However, considering the gigantism and variation of the vast population, India need to conceptualise a benchmarks, which might be different than the western countries. The global debate on smart city concept and its practice are revolved around two different but interconnected elements. Those are 1) definitional frameworks and 2) clarity in approach. Having discussed about this the paper identifies the essential links which are missing and need to be established in conceptualising the Smart City in Indian context. Two missing elements are indentified here which need to be integrated with the concept. Those are 1) Cultural Heritage and City Ethos, 2) Control on land and natural resources. The enabling factors for making smart cities happen like Organisational preparedness has been discussed. Considering this, finally, an integrated framework has been proposed.

**Keywords:** Smart City, Benchmarks, Urban Reforms, Smartness, capacity building

## Negotiating the Power to Plan: Spatial Planning and Property Rights in Periurban China

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#### Abstract

This article explores China's planning politics through an investigation of village planning in peri-urban Chongaing. Based on ethnographic interviews, participant observation, and document review, the article evaluates the planning process using the theoretical lens of fragmented authoritarianism. Through this analysis, spatial planning emerges as a key inter-scalar arena for coordinating the interests and actions of party-state actors who exercise delegated rights to and powers over land use. These planning powers and property rights constitute a single paradigm of action in the Chinese planning system, and powers can be traded between party-state actors as part of the process of coordination. The analysis also emphasizes the role of the Chinese Communist Party as a crucial political medium for negotiating inter-scalar relations. To understand China's planning processes, it is thus necessary to look beyond formal state institutions and explore the personal networks of political patronage that operate within the party. This investigation suggests several implications for our understanding of Chinese planning, directing attention away from normative market interpretations that emphasize questions of regulatory efficacy and toward the importance of political power. Rather than constituting a new form of regulatory control responding to the demands of a marketized economy, contemporary Chinese planning thus emerges as a continuation of the state's pre-reform control over land use and development.

**Keywords**: China, planning, peri-urbanization, village, property rights

## The Effect and Enlightenment of Chinese Urban Construction by New Urbanism

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#### **Abstract**

New Urbanism was a new movement in the field of community development and urban planning in America in the late 80's, which attempted to rebuild a sort of compact and convenient neighborhood communities contacted with traffic lines in a larger regional open space. Under the background of introducing and practicing the theory of New Urbanism in China for some time, this article briefly introduces the conceptions of New Urbanism, clearing the reference significance to China urban development in certain conditions and appropriate changes. By analyzing a series of practice cases in China which apply TND and TOD modes, the article point out several problems in the process of practice, such as traffic congestion, environmental deterioration, diminished quality of life and so on, and find out the reasons contributing to the issues above. In addition, several methods have been proposed in order to guide reasonable application of the theory in China at the aspects of urban structure, land use, function layout, traffic organization, ecological landscape, historic preservation and neighborhood community. Finally, the article points out a new idea that besides the Transit Oriented Development mode, we could create some other modes, such as Occupation Oriented Development (OOD), Ecological and Landscape Architecture Oriented Development (ELAOD), Economy Oriented Development (EOD), Comprehensive Oriented Development (COD) and so on, to solve the city problems in the way of the inheritance and development of New Urbanism.

**Keywords:** New Urbanism, residential suburbanization, public transportation, neighborhood community

# Measures of Beautiful Countryside Planning Of Metropolitan suburban countries Based on Modern Agriculture Development ——Xu Yao Country in Shanghai as an Example

Ying Gu<sup>1</sup> , Ze Zhang<sup>2</sup>

#### Abstract

From 2004 to 2015, Documents NO.1 of the Central Government of China have always focused on agriculture, farmers and rural area, and there are many problems to deal with. Beautiful countryside planning and construction is being carried out all over China with the instruction of Document NO.1 in 2013 of the Central Government. Especially, metropolitan suburban countries in China may face more challenges than other rural area, for example, local farmers are decreasing and aging, the base of agriculture industrialization is weak and the environment is worse than before. With those changing backgrounds, metropolitan suburban countryside in China has to explore new ways to realize rural area revitalization. Because metropolitan suburban countries have intimate links with metropolitans, their economic and social development are both influenced by metropolitan urbanization intensely. The paper takes metropolitan suburban countries as the research object. First, through analysis of metropolitan suburban countries' current situation in China, the paper points out the key problems to deal with in beautiful countryside planning based on modern agriculture development of metropolitan suburban country. Second, the paper makes some forecasts about agriculture development of metropolitan suburban countries in China. Third, based on practice of Xu Yao country in Shanghai, China, the paper explores measures of beautiful countryside planning based on modern agriculture development of metropolitan suburban countries to drive rural area economy revival. Based on the local nature condition and current construction situation, the planning proposes large-scale agriculture with the leading of demonstrative projects, emphasizes agriculture merging with service and government' guidance and calls for public participation. In the planning many measures are taken to realize modern agriculture development, high-efficient planting and livable environment. The planning are being implemented now well-off. In a word, the case is a successful beautiful countryside construction practice in China.

**Keywords:** Modern Agriculture, Beautiful Countryside, Metropolitan Suburb

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#### A Brief Analysis of the Reasonable Pattern of Rural Land Utilization in Hetao Area – A Case Study of the Village Planning in Bayannur

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#### Abstract

The overall situation of rural area in China is large population with relatively small arable land, while the situation of Hetao area, which located in the upper and middle vellow river, is different. Hetao area has a vast territory with a sparse population and it has been the main agricultural area of northwest China for a long time. This paper aims to analyze the reasonable pattern of land utilization in Hetao rural area on the basis of the investigation and spatial planning of the 64 villages in Bayannur. The research team interviewed dozens of local villagers to quest the main problems of land utilization of the local rural area. Such as the utilization rate of farmland is low, the area of rural construction land is too large, the layout of construction land is scattered, the homestead area exceed the standard and etc. The research team also read literature to analyze the reasons of these problems in details. The main reason is the traditional mode of life there is not suitable to that land nowadays, and the mode of land use is unreasonable. Combining with the opinions from villagers, the paper puts forward several solutions to the problem of unreasonable utilization of Bayannur rural land in planning and analyzes the reasonable pattern of land utilization, which can be a reference to improve the land utilization of this kind of village.

**Keywords:** Bayannur, village planning, land issues

## Nature Must Be Defended: The Governance Of Nature Between Urban Taipei And Rural Pinglin

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#### Abstract

Pinglin, a mountain village near Taipei, is both an important site of tea production and water resource. Being appointed to be Taipei reservoirs catchment conservation area, local industrial development was restricted for protecting nature, but on the other hand, the water resource refund was passed from urban Taipei to rural Pinglin, bringing a main financial resource for the maintenance of local public-needs, in the end constructed a particular circulation between the urban and the rural. In order to discuss the practices of natural governance, and to reveal the urban-rural relationships between Taipei and Pinglin, this research took the approach of non-reactive method with the historic analysis of governmental documents, including the spatial planning and the financial planning. In the planning projects in Pinglin, protection of water resource was to fulfill the demand of water in Taipei (especially the urban area) during urban development, and all the cost rural areas paid could be compensated by money. From beginning to the end, the nature and the rural were only an object to urban domination, and the natural governance finally became a reproduction of existed urban-rural relationship. The natural and regional governance has constructed two types of political hierarchy: on the one hand the urban domination in interregional relationship, and on the other hand, the domination of bureaucratic governments.

**Keywords:** Natural governance, urban-rural relationship, water resource governance

## An Evaluation of the Objective Analysis Methods applied in Visual Complexity Analysis in Landscape Planning

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#### Abstract

This research was conducted to undertake a critical comparison between the objective analysis methods which are used for the landscape visual complexity analysis and the actual human perception of the visual complexity. For this research 4 objective analysis techniques were selected; Shannon entropy, Simpson Index, Gini Coefficient and Fractal Dimension analysis. The human perception was assumed as the most accurate expression on the visual complexity and the results of the objective analysis methods were critically compared with the human perception. The perspective views of eighty urban residential streetscapes from the Saitama Prefecture, Japan, were displayed to a group of subjects and their perception on the complexity was identified.. Meanwhile the objective measurements were undertaken. The variety and the number of visual elements available along either sides of the streetscapes were used for the Shannon entropy and the Simpson index calculations. The number of visual elements available along the streetscapes were used for Gini Coefficient calculations while the monochrome perspective views were applied for the Fractal Dimension analysis using the Fractalyse software. Finally, the results of the subjects' perception and the objective analysis methods were compared. According to the comparisons, the results of the Gini coefficient was more equivalant with the human perception. The Shannon entropy and the Simpson Index calulations showed minor deviations from the human perception while the result of the fractal dimension analysis was not campatible with the human perception

**Keywords:** Visual complexity, objective measurements, subjective analysis, landscapes

### Non Identical Twin Towns: Diversity in Urbanism Characteristics Aditi Solanki <sup>1</sup> and Sejal Patel <sup>2</sup>

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#### Abstract

Towns and cities, like all settlements, are exposed to diverse situations and they have their own history and origins in different time periods, making them unique. A city is a process, where it evolves from a small settlement to a village followed by a town and growing into a city. And it doesn't stop here; it further goes on to be a large city or a metropolis. Hence, it is important to understand this process of evolution and factors that affect this growth. Asian cities have shown different growth patterns than the claims of western theories and their cities. So, it is more critical for us planners to know factors that affect the growth of our towns and study their reason for diversity. In India, in the state of Rajasthan, Sheogani and Sumerpur are twin towns on the opposite banks of Jawai River. These twin towns are in the same agro climatic region with similar resource base and means of production and only separated from each other by a river and vet they have distinctly different urbanism characteristics as per the author's a priori knowledge. This research explores the question of 'Why and how do urbanisms characteristics vary in twin towns with similar agro climatic context and resource base'. The objective of the research is to examine the differences and diversity between the twin towns and investigate the possible reasons for this by determining its journey of evolution and the process of urbanization. The argument of this paper is built on two lenses: Economy and Gender Parity. A mixed method is used for the research, i.e.: Quantitative and Qualitative both. The key results of the paper are: There is a great economic, historical and social diversity between both the towns despite the presence of similar moulding factors in terms of geography and cultural setting. Sheogani has a predominant tertiary economic base whereas Sumerpur has a predominant primary economic base. Sheoganj shows more gender parity than Sumerpur. Despite similar context and resource base, twin towns can display very disparate economic and cultural characteristics and hence urbanism pattern owing to a multitude of reasons.

**Keywords**: Economic Diversity, Cultural Diversity, Urbanism, Twin Towns, Gender Parity

# Social Network, Spatial Structure and Evolution of Yangtze River Delta Innovative Cities Cluster -- Based on Data of Patent Cooperation

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#### Abstract

Innovation is the main engine of urban and regional development. The essence of regional spatial restructure is the flow, organization and crosscoupling relationship between the innovative elements. This research took samples from 42 cities around Yangtze River Delta cities cluster. The applied and published data of patent cooperation from World Intellectual Property Organization (WIPO) PCT system was used as alternative parameters of innovative cooperation in 3 different stages from 2000-2015, where one combined with spatial analysis and observed the social network, spatial structure and evolutional pattern of the Yangtze River Delta innovative cities cluster through analysis of social network based on network density, centrality and cohesive subgroup dimensions. Result: (1) Year 2000-2005, innovative cities cluster began to burgeon, using Shanghai as an important node; (2) Year 2005-2010, Yangtze River Delta Innovative Cities Cluster rapidly developed, a "core + nodes" network and spatial structure with Shanahai as its core has initially formed; (3) 2010-2015 Yangtze River Delta "core + nodes" network characteristic strengthened, at the same time new corridors along transport axis have appeared.

**Keywords:** Innovative Cooperation, Social Network, Spatial Structure, Evolution, Yangtze River Delta

### Linkage in Regional Planning of Vietnam Nguyen To Lang

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#### Abstract

Vietnam has about 90 million people, of which the urban population is 29.72 million, accounting for nearly 33.47 per cent of the national population, distributed over the area of 330,000 square kilometres, in 63 provinces and cities. The provinces and cities are divided based on different types of zones, or on geographical characteristics, or the nature of production, or the lifestyle, customs and traditions; in each region there are different characteristics between the provinces and between regions. The country has been rapidly developing after the "Innovation", many provinces have specific breakthroughs, enhance the quality of the people's life, attract many sources of investment, including foreign investment. The study of the regions in which finding similarities and create linkages in each region as well as across the country is essential and meaningful. This paper presents the basic features of importance of the regions in country's socio-economic development, the different criteria for different regions in Vietnam, the shortcomings in the regional linkage and solutions for developing regional linkages, including planning implementation and development management as well as the managing organization for regional planning and investment.

**Keywords:** Linkage, Regional planning, Development management.

# A Study on the Difference of Influence Factors of Subway Mode Shares Based on Distance to Central of Urban

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#### **Abstract**

The purpose of this study is to prove the change of subway mode choice rate by a distance from central of urban in the Seoul Metropolitan Area. The spatial range of this study is the 348 communities which have subway infrastructure in the Seoul Metropolitan Area (SMA), and the base year of this study is 2010 year. The cities in the SMA experienced urban spread in a short time. Around the cities, except for Seoul introduced subway after urban extend. So these cities may be less effective in mode shift by subway. The network distances along the railroad between a station and other stations calculated using the network analysis in ArcGIS. The communities in the SMA are classified three group base on the network distance. The multiple regression analysis were performed to verify influence factors for each group. In the results of this study, the longer the distance from the central of urban, the more decline the rate of mode choice by subway. Even though the communities have a subway line, the rate of mode choice of subway is very low. In addition, we identify difference of effect elements on subway mode shares each group. The results of this study provide useful materials which can be reference on additional subway construction.

**Keywords:** Subway mode shares, Distance to Central of urban, Mobility, Multiple regressions, The Seoul Metropolitan Area

### Challenges of Informal Settlements in Urban Area of Kabul City Daryoosh Hazia¹ and Kiyotaka Morisaka²

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#### Abstract

Kabul, the capital city of Afghanistan is experiencing the new era of urban housing problems due to rapid population growth during past decade. While Kabul city is yet to recover fully from damaged infrastructure caused by past three decades of conflicts and unrest, the population has grown rapidly, from 2.72 million in 2005 to 4.22 million in 2008 (estimate by the Central Statistics Office of Afghanistan). Due to lack of proper management strategy and tools, insufficient financial and trained human resources at the disposal of the local authority, housing has become the major problem and one of the main driving forces behind informal settlement in Kabul city. As per the World Bank study, about 70 percent of the Kabul city has developed informally. This paper comprehends the basic causes of creation of informal settlements through diagnostic study and visualizes patterns for strategic planning and development efforts and proposes measures to curb the trend of informal settlements. The study is supplemented with purposive sample surveys including interviews with community leaders in such settlements in order to get insights of available urban basic services and amenities, and their willingness to support the efforts of local government towards regularization of such settlements as it is well established that these informal settlements are contributing in a big way to the life and economy of Kabul city.

**Keywords:** urban housing challenges, informal settlements, urban planning

#### The Effects of High-density Housing (apartment) Development on Water Supply and Sewerage in Korea

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#### Abstract

Since Korea has successfully solved water supply and sanitation problems during its rapid urbanization period, this study attempts to highlight the characteristics of Korea's water supply and sewerage development model in order to derive implications for developing countries that currently suffer from water shortages and inadequate wastewater treatment conditions. In particular, this study focuses on the impact of housing development density on the level of water supply and sewerage. To explore this relationship, it first provides a background of the historical achievements of water supply and sewerage infrastructure in Korea. It also theoretically illustrates the relationship between high-density housing (apartment) development patterns and water infrastructure. This argument is then empirically supported by quantitative analysis using multiple regression models, including dependent variables such as the percentage of population connected to water supplies and sewage treatment systems respectively. The results reveal that massive high-density housing developments have contributed to increasing the level of water supply and sewerage in Korea. In particular, cross-sectional multi-regression analyses show that the proportion of high-density multi-family housing (apartment) has the greatest impact on achieving high levels of water supply and sewerage, further suggesting that developing countries switch from low- to high-density housing development to solve both housing and water infrastructure shortage problems.

**Keywords:** Water supply and sewerage system, housing density, Korea, developing countries

## A Study on the Directions of Housing Supply for the One-Person Household in Local Small and Medium Cities

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#### Abstract

In modern society, the type of one-person household is increasing by increasing unemployment rate, divorce rate, aging rate and etc. In particular, one-person households have rapidly increased around local small and medium-sized cities. In this regard, this research puts its purpose in suggesting the direction of housing supply for one-person households suitable for local small and medium-sized cities by investigating the characteristics of one-person households in the social, economic, and physical aspects. This study found out that one-person households on a basis of were divided into two groups; one group resided in a dynamic cities and the other group resided in a stagnate cities. For the one-person households living in dynamic cities, it is necessary to expand of supplying quasi dwellings such as one-room or officetel (efficiency apartment) for young people. In addition, the long-term support through the security of welfare budget is required for one-person households. On the other hand, for the one-person households living in stagnate cities, houses should be supplied with the major target of the elderly who are composed of oneperson households in the event of providing new houses. In this case, social welfare or cultural facilities should be accompanied when houses of oneperson household are supplied in new residential areas or existing residential areas.

**Keywords:** Small and Medium Cities, One-Person Household, Housing Supply, Housing Demand, Regional Development

### Gentrification Implication in Jakarta: an Indigenous Community Perception Santy Paulla Dewi

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#### Abstract

Gentrification as a natural process of neighborhood transformation occurs in most cities in the world. There are still some discourses regarding this term which is positive or negative process. Whereas negative process is saw from displacement of indigenous community, positive process taken from better environment and economic development. Jakarta as one of big cities in Indonesia has two functions as capital city of Indonesia and an autonomous region makes Jakarta become a magnet of development. Not only many infestations run there, but also infrastructures are provided. This situation attracts workers from other cities to come. Hence, the population of Jakarta surge significantly. Increasing of population number means rise of infrastructure demand, including housing demand. Housing demand provision influence indigenous community existence which most of them were displaced. Likewise, since 1970 aovernment of Jakarta had many urban development programs which caused a big eviction of indigenous community. Their previous neighborhood changed into modern flat, shops, restaurant and some offices. In Jakarta, Betawi community is the indigenous community who also one of oldest communities in Indonesia. They sold their house and moved to peripheral region of Jakarta which lack of infrastructures. Whereas some of them choose to stay in their previous place though with higher level of standard living. They still poor which mostly work in informal sector, having bad sanitations condition, and school dropout. This indigenous community lives together with gentrifier in the same neighborhood with different level of living standard, and housing condition. It makes some social and economic gap among indigenous community and gentrifier. Increasing of housing price, better infrastructure and environment condition tends to give benefit to gentrifier only. Yet, government saw this neighborhood transformation as a positive way, because there is increasing of economic level of community, better housing and environment condition. This paper tries to explore gentrification and its implication particularly to indigenous community perception related with transformation of their neighborhood; new neighbor, new infrastructure and new lifestyle. There are several steps to conduct such as identification government policy regarding urban development programs, housing and infrastructure provision, analyzing first stage of gentrification in Jakarta, its influence and how indigenous community deal neighborhood transformation. Using qualitative method which conducts field observation and direct interview to indigenous community and government to gain information how their perception related with gentrification which occurred and what are government should aware related the transformation.

**Keywords:** gentrification, indigenous community, displacement, gentrifier

# The Targets and Ways for Humanizing Urban Transportation—the North America Experience Enlightenment for Beijing LI Chi<sup>1</sup>, WANG Zhuo<sup>1</sup>

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#### Abstract

of "automobile-oriented" Disadvantaaes urban transportation development continue to appear at present. Hence, the concept of humanization in urban transportation is getting more and more attention. This article emphasizes that the targets for Humanizing Urban Transportation is to ensure that the urban transportation is highly effective, safe, comfortable and ecological. This article first researches the successful experiences of many cities in north America, such as, making reasonable transportation network planning in order to meet the different needs of a variety of way to travel, advocating public transit oriented development mode, perfecting the corresponding matching extension services. Then this article suggests many strategies, including, participating the traffic demand management in many departments, continuous innovation strategy to reduce motor vehicle traffic and exhaust damage to the environment. Finally this article also advises the slow traffic facilities layout, design method of static traffic street, increasing fun walking street. In light of urban transportation problems in Beijing, this article put some suggestions for the development of humanizing urban transportation in Beijing, though studying on the experience of North America.

**Keywords:** Humanizing Urban Transportation; Network Planning; Demand Management; Implementation Strategy

# Travel Behavior of Public Bicycle Users using GPS: A Case Study of Minhang District, Shanghai

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#### Abstract

Taking the public bike system of Minhang District as a case study, the paper investigates residents' travel behavior using the public bike system to provide reference for the development of the public bicycle industry. The data is obtained by a questionnaire survey with GPS instrument. Firstly, the travel time, travel frequency, travel distance and other characteristics of the travel behavior are summarized. Then by analyzing the actual riding route, it summarizes the users' riding environment preferences. Finally, the shortest paths of the travel behavior is analyzed. The paper conclude that the PB are mostly used in necessary travel, such as work; the Time distribution of using the PB in the day focused on the rush hour; the study of the revealed preference of travel route show that, contrast the secondary roads without bike lanes, public cyclists are more inclined to the main road with bike lanes; compare with the shortest route, small part of the trip will increase the travel distance because of multi-purpose.

**Keywords:** Public Bicycle System, Travel Behavior, Revealed Preference, GPS

## Tripographic Assessment of VFR Travel in Context of Malaysian Domestic Travelers

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#### Abstract

Visiting friends and family (VFR) travel is the oldest form of travel that involve visiting family and friends as part of activity during the trip either as a main purpose or as a secondary purpose. Population growth among the country is one of main reason why this VFR market is expanding. As visiting friends and relatives is important socially with various type of activity or events with them including attending wedding, funerals and many more, travelling with the purpose of VFR has been recorded as the main purpose of travel for Malaysian domestic travel market in 2013 where the 44% travelers are travelling for the purpose of VFR. It is a normal when people start to move from their hometown for different type of purpose such as iob's requirement, further study or even seek for new environment. Their friends and relatives left make population. So the population grows, VFR market grows as well. However, there is less study in this potential market especially in context of Malaysian domestic market. Past study has shown that this market seems to be neglected as the type of itself did not seem to give a huge impact economically to the tourism industry. This market was assumed not utilizing any tourism service and not participating any tourism activity. In order so, this paper aim to examine the tripography of VFR travelers in Malaysia where it assess the trip characteristic of VFR travel in order to have a better understanding of this potential market in context of Malaysian domestic travelers. A survey was carried in selected area that packed with domestic travelers. Data obtained used in comparing the trip characteristics among VFR market travelers and non-VFR travelers. This result will be useful as a tool for marketing strategy and as a key planning for tourism destination

**Keywords:** Visiting Friends and Relatives, VFR travel, trip characteristics

## Understanding the Pressure on Agriculture Land As A Safeguard for Food Security in Malaysia

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#### **Abstract**

The utmost and continuing challenge facing the agriculture world is to produce enough food to feed the growing world population. Food security is inextricably linked to a community's access to land. Without land, there is no opportunity to improve agricultural practices, produce enough food and generate incomes. What worries more is that at present our country has to rely on the supply of imported food, as long as there is no crisis or disasters in the Asia region then we will be rest assure of the supply. That is why; the pressure put on agricultural land should be the main concern of all responsible parties, as this land is the heart of the national domestic food production. Securing for food security eventually is the only one dimension of protecting agricultural land. Agricultural land was also needed for its scenic, wildlife, recreation, and for open space that give benefits sometimes referred to as rural amenities. Thus, this paper endeavours to comprehend the state of food security by analysing the factors that lead to the pressure put on the agriculture land particularly in relation to the agricultural land revolution.

**Keywords:** food security, land use pressure, agricultural land, agriculture, Malaysia

## Three Sustainability Advantages of Urban Densification in Present Urban Form: Evidence from Bandung City, Indonesia

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#### Abstract

Amid limited land resource in Bandung city, pressure on the needs of lands continuously exists. Urban densification may create high density spaces and minimizes trip length by exploiting vertical growth. In contrary, sprawling city expands horizontally and creates low density spaces. Sprawling cities in most cases are motorized transport dependent cities. The study was carried out by analyzing the present form of Bandung City. Bandung City in Indonesia, a pronounced concentric-cum-sprawling city of a developing country, was selected as study area. The analysis covers three most determinative environment-related issues that lead to sustainability advantages of the city, since appropriately addressing the issues would likely contribute to sustainability of the city. These three issues are transport energy, flood, and groundwater depletion. Analysis on transport energy consumption in three urban development forms was carried out. The study result reveals that urban densification may lead to lower transport energy consumption as reflected in the mixed use areas compared to the other two urban development forms. The study also confirms that urban densification enables groundwater depletion to be minimized amid significant abstraction in the city and at the same time reducing flooding problems.

**Keywords**: concentric city, environmental consequences, sustainable city, transport energy, urban flood.

#### People Centered And Initiative For The Sustainability Of Urban Kampung: Case Studies of Surakarta, Yogyakarta and Semarang City

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#### **Abstract**

Since 2001, some cities in Indonesia already implemented an appropriate planning process, and has good conditions for governance initiatives. Those cities's government introduced direct community involvement through a mechanism called participatory development planning. These systems foster a bottom-up planning approach of community participation to take an initiative effort in various fields such as regional planning, budgeting, and other aspects through community participation start from the lower level of administration of Kelurahan (Sub-district). Included in this development strategy is the people-centered community planning in urban Kampung area. In fact, the development of Urban Kampung was spontaneous and partial. Therefore the community participation in the local planning process should be seen as a mechanism to overcome the socio-economic inequalities and mutual distrust.

This paper aims to understanding the role of people-centered and initiative of the community planning, bureaucracy and stakeholders in urban kampung development. The scheme will contribute to clarify and identify the urban kampung issues in heritage city. People-centered community planning is proposed as an alternative to rational synoptic planning. People-centered planning unites participatory planning with population-specific planning. Three cities as the case studies are Kampung Laweyan (Surakarta), Kampung Kotagede (Yogyakarta) and Kampung Bustaman (Semarang) in heritage city will examined.

**Keywords:** Community Planning; Urban Kampung; Development Strategy, Heritage City

### TRACK 2: URBAN INSTITUTIONS AND GOVERNANCE (IG)

### Political Campaigns and Urban Transformation in Maoist China, 1949-1976 Zhu Qian<sup>1</sup>

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#### Abstract

China's pre-reform urban transformation was directed, and accompanied, by a series of radical political campaigns that aimed to achieve Mao's utopian and revolutionary ideals, as well as pragmatic and economized strategies. The erratic direction changes taken by urban planning and policies were also a response to changing domestic and international geopolitical conditions. This paper examines the dynamic relations between major radical political campaigns and urban planning and development in Maoist urbanism. By investigating the transformative power of radical political campaigns and how these reconfigured urban planning policy, the paper sheds light on the critical role that Maoist political movements played in transforming the socio-spatial aspects of Chinese cities during the period between 1949 and 1976.

**Keywords:** Urban planning history, urban transformation, political campaigns, pre-reform, China

### CLAIMING THE CITY: The Rise of Aam Admi Party in Delhi from Advocacy to Governance

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#### **Abstract**

Delhi the political capital of world's most diverse democratic country not only reflects conflicts and contestation on national but also local city planning and governance issues. It is the only city state, in India with considerable degree of autonomy. It has its own politically elected state government with a mandate to plan and govern the city. This is a unique urban governance experiment in India and there is increasing demand for similar structure for better urban management from other mega cities in India like Mumbai or Kolkota. The common discourse in India believes that political empowerment of cities is important for resolving city problems. However despite the existence of city state with decentralized and empowered governance mechanism Delhi has not been able to solve its umpteen urban problems resulting in large section of marginalized and aggrieved population. The marginalized and aggrieved which itself is diverse and fragmented have very minimal role to actively participate in the development process except by electing their representatives every five years and wait for the favorable outcomes to ameliorate their condition. Till December 2013 the two national parties the Congress and Bharatiya Janata Party were the only choice for the people of Delhi. İn absence of any alternative people had no choice but to elect one of them, may be by rotating them every five years. However the situation changed in 2011 with the anti corruption movement started' by Anna Hazare and subsequent formation of Aam Aadmi Party by Mr Arvind Kezriwal in 2012 and their decision to contest Delhi state election on the issue of eradicating corruption, improving city governance and empowering and improving the condition of the common people. To everybody'd surprise the Aam Admi Party contesting the election for the first time managed to win substantial number of assembly seats and ultimately form the government with the support of the congress. After forty nine days the party resigned from the government only to be voted back again with thumping majority (67 seats) in the just concluded election in 17th February 2015. This is a major event in India without any precedent. The transformation of an advocacy group to a political party and ultimately to people's government in a span of one and half years is revolutionary with important political and governance ramifications at the national, state and local level. It is these transformations and its urban ramifications the paper intends to explore. More specifically the objectives of the paper are:

1. Trace the evolution and transformation of an advocacy group to political party and ultimately to government. It will be interesting to identify the factors and the methods used by the advocacy group to engage and mobilize the large urban constituency in their favor.

2. Identify the constituency and support base of this nascent party in the state of Delhi. Whose interest do they represent? Many claim it is the rise of the middle class but apparently it also has large following amongst the poor cutting across religion and other socio-cultural division.

Urban governance and planning implications of the pro poor welfare oriented advocacy party and the possible conflicts with the private market interest which is already embedded in the provisioning of many urban services including power and water etc.

# Democratic Values and Participatory Governance: Examining the E-Government System of Ethiopia

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#### Abstract

The objective of this study is to investigate how democratic values that include public sphere, participation, government capability, and transparency affect participatory governance; what the moderation impact of e-government systems is in the democratic values and participatory governance relationships; and how crowdsourcing and edemocracy explain participatory governance. Ethiopia is our case study to investigate. The authors will focus on examining the e-government system of Ethiopia that moderates the relationship between the democratic values and participatory governance. We conducted an online survey and collected Ethiopian cases. To overcome limitation in the survey, a mixed approach that combines the qualitative and quantitative methods was adopted. This research is a pioneer case that empirically examines the relationship which has been only discussed theoretically. It is expected that this research can contribute to developing an advanced participatory aovernance system where the Ethiopia government shall implement crowdsourcing and e-democracy, and hence, the active deliberation of citizens is auaranteed.

**Keywords**: Democratic values, participatory governance, crowdsourcing, e-democracy, e-government services.

## Urban Environment and Governance: Issues and Challenges in Indian Cities

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#### Abstract

In 2011 India is 31.1 percent urbanized with urban population growth of 2.76 percent reversing the declining rate of previous decades. This current trend of urbanization is creating tremendous pressure on urban environment. Apparently administrative structure has given very little power to the local bodies in India to improve the quality of urban environment. The primary objective of this paper is therefore to examine if the environmental governance at the level of Urban Local Bodies' (ULB) remains true to its term both regarding devolution of power to this strata of administration and taking sensitive action for environmental management on its own. This paper focuses on examining different stages of governance and identification of problems at the local level pertaining to India's legislative framework, institutional mechanism and policy measures all across three strata of Governance to understand the gap. Capacity building initiatives by the national government have also been examined to understand the capacity related issues for taking appropriate action at the urban local body. The paper raises serious shortcomings of the multilevel environmental governance in India especially at the level of urban local bodies. It is also evident from the study that several national programs and plans are formulated to improve urban quality of life through better management of urban infrastructure and environment. However due to governance issues and lack of capacity at the local body in terms of trained human resources and financial resources, urban local bodies are unable to play significant role in taking care of urban environment.

**Keywords:** Urban Local Bodies, Urban Environment, Environmental Governance, Indian Cities

# Governance Trends in A Decentralised Regime: A Study of Health Projects in Two Urban Local Governments in Kerala, India

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#### Abstract

This paper reports partially on a study of the efficacy of urban governance institutions following decentralisation in the state of Kerala, India in three sectors – health, education and sanitation. The study was funded by the Ford Foundation. This paper focuses primarily on the health sector. Two urban local governments were chosen for study - Kozhikode and Alapuzha. Following an initial search and study of state level data through relevant documents and websites, within the case studies, a mixed methods qualitative enquiry was employed. For information on local government level projects in the three different sectors, local government records and publications were studied. Also elected representatives, key officials in charge of these sectors at the local government level and local media representatives were interviewed at length. From the overall picture that emerged, at least one important project that emerged as significant was chosen for documentation in each sector in each local government. More closely focused qualitative fieldwork was then carried out to document institutional arrangements and project implementation arrangements in these projects. The methods employed included site visits, analysis of project related documents and in depth interviews with various stakeholders. This paper will seek to answer the following two key research questions in relation to the health sector:

□ What had changed betweer	the pre-decentralisation	era and the post
decentralisation era?	·	

The empirical evidence suggested two different strategies in the two cities for addressing the health issue. Thus whilst Kozhikode pursued a strategy of

□ What differences between the cities can be discerned?

for addressing the health issue. Thus whilst Kozhikode pursued a strategy of 'revising and gelling existing assets', Alappuzha pursued a strategy of 'filling gaps and providing temporary spaces'. The governance logic of both these strategies is explained in relation to the particular contexts and a wider reflection on what these strategies suggest for governance of Asian cities today is presented. In particular the role of the local state is examined and theorised.

**KEYWORDS:** planning for health; decentralisation; project formulation; the local state; Kerala, India.

# A Study on the Establishment of Institutional Framework for Collaborative Urban Planning in Afghanistan Focused on Analyzing the Transferring Process of International Urban Planning Systems

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#### Abstract

This article provides an overview of Afghanistan's urban planning institutional change in certain historical periods, particular dilemmas within the current urban planning system and its gradual shift from totalitarian urban planning approaches practiced during 1960s - 1980s to a different form of planning being practiced by the current government. In addition, it will seek to analyze the ease and tension caused by the three recent phenomena that have emerged after the establishment of a new democratic government in Afghanistan since 2001, such as private sectorled urban development, international funding community's and NGOs' role in planning and the delegation of certain roles given to different tires of the government. Another purpose of this work is to analyze the collaboration among urban planning institutions, private sector, international funding community, NGOs and civil society within the current urban planning arena of Afghanistan and to identify the roles, responsibilities and functions of urban planning institutions in different levels of urban governance. Finally find out what possible and necessary institutional changes and framework are needed in order to foster grassroots based inter-institutional collaboration and partnership among various tires of government. The methodological approach to the research is based on qualitative data analysis. For the analysis purpose, government urban planning data and in-depth, semi-structured, face-to-face interviews with Afghanistan's urban planning officials were thematically used, which provided in-depth information about involved actors in urban planning and their roles and relationships.

## The Challenges of Governing Urban Rivers: The Case of the Iloilo River in the Philippines

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#### Abstract

The perceived deterioration of urban rivers has resulted in a management shift from a technological and knowledge approach to a framework that incorporates the ecosystem and participatory and adaptive processes. While an integrated, collaborative approach to natural resource management at the catchment scale is a strong theme in planning and environmental management literature, river councils have experienced challenges in fulfilling their roles within the framework of a devolved leaislative mandate of The Local Government Code of 1991. A case analysis of institutional agreemence for water was used to examine challenges experienced by river council members in Iloilo City. Philippines using the integrated water resource management (IWRM) framework. One method of primary data collection was key informant interviews (KIIs) with representatives of national and local government agencies, the local government units and the private sector. The other method was focus aroup discussions (FGDs) with community leaders of the 37 villages along the urban river. A key finding of the study is that knowledge appeared to play complementary but largely subordinate roles to expert technical and scientific knowledge. Moreover, while council members coordinate with each other, there is over reliance on one champion in project implementation; there is also absence of an integrated river management plan; and funds for river-related activities are not part of regular projects. The involvement on river management by women and the villages have been limited to clean-up activities. This study calls for a re-examination of the current organizational structure which maybe the main cause of the management challenges. The paper also supports extant literature which proposes for a multi-scalar governance strategy to improve the integrated water resources management.

**Keywords:** urban rivers, Iloilo river, IWRM, partnership

### Better Awareness for Better Natural Hazards Preparedness in Pakistan Awais Piracha<sup>1</sup> and Muhammad Tariq Chaudhary<sup>2</sup>

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#### Abstract

Pakistan is highly vulnerable to natural disasters. It faces severe geophysical hazards (earthquakes, landslides, and tsunami) as well climate change reinforced hydro-meteorological hazards (floods, droughts, tropical storms). Poor availability and exploitation of natural resources combined with dense, high and fast growing population and other peculiar politico-socioeconomic factors add to Pakistan's vulnerability to disasters caused by these hazards. The knowledge and awareness of impending disasters, their impacts, their mitigation, preparedness and adaptation is lacking among government officials, planers, engineers and general public. This research presents two case studies; one each from the categories of geophysical hazards and hydro-meteorological hazards, where knowledge and awareness is lacking and where improvements in the same can lead to better adaptation and preparedness. The first case study discusses mitigation of seismic hazards to non-engineered buildings through better knowledge of low-cost structural engineering solutions. It is demonstrated that seismic performance of these structures can be improved from lifesafety viewpoint by adopting simple low-cost modifications to the existing construction practices. The second study points at lack of awareness among local planning officials of climate change impacts leading to water scarcity and flood hazards at different times. It demonstrates a lack of institutional capacity in Pakistan that was discovered through primary research conducted for this study. The research demonstrates there are common themes across the two very different case studies and there are common lessons that can be learnt.

**Keywords:** Natural Hazard Management; Knowledge And Awareness; Urban Planning; Earthquake Resistant Design; Climate Change

### Climate Migration And Change Of Human Lives And Social Structure Dr Reazul Ahsan

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#### **Abstract**

Extreme climate events such as Hurricane Katrina in the USA, Cyclones Sidr and Aila in Bangladesh and Nargis in Myanmar have had catastrophic impacts on human lives and social structure that are highly exposed to extreme climate events. But the results of such climate change induced events are not confined to the immediate effects; longer term implications for human lives such as health and welfare, financial cost and downstream social, economic and environmental consequences may reverberate for many years following such extreme events. As climate change intensifies, worldwide, hundreds of millions of people, many in low-lying coastal zones, face forced displacement and will migrate in search of alternative livelihoods. In most cases the destinations of such displaced populations are the nearest urban area. On arrival refuges face emotional, social and economic stress as they seek to adjust to changed circumstances. At the same time, the receiving urban areas must adapt to an influx of people and the physical and economic demands this place on the existing system. Bangladesh represents a region where a complex set of climate driven outcomes is already evident as land is inundated and populations migrate in large numbers. Using the region as an example, this research examines climate change impacts ranging from the primary impacts on natural systems, through secondary population displacement and migration to the eventual outcomes for urban populations. Tertiary impacts are defined as social change on the urban system, so the scope of the chapter is the interconnection between climate change, migration and urbanization.

**Keywords:** Climate migration, urbanization, urban changes climate change impact levels

# A Paradigm Shift from Emergency Response to Reconstruction and Rehabilitation: Creation of Peak National Body for Disaster Management in Pakistan

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#### **Abstract**

The earthquake of 8 October 2005, an unprecedented disaster in the history of Pakistan, led to an equally exceptional national response. Reconstruction and rehabilitation of affected areas was indeed a herculean task. The Earthquake Reconstruction and Rehabilitation Authority (ERRA) was immediately established as a peak national body with extraordinary powers and mandate to ensure coordinated actions for rescue, relief, reconstruction and rehabilitation. The national institutional set up was forced to readiust rapidly to convert this adversity into an opportunity to improve its capability to deal with disasters. This paper aims to provide an overview of the institutional strategy and measures undertaken in the wake of the 2005 earthquake. It looks at the strengths and weaknesses of installing an efficient entity largely adopting a command and control approach to efficiently and effectively deliver reconstruction projects on the ground. The paper seeks to derive lessons that can be useful for governments considering the setting up of comprehensive proactive disaster management systems.

**Keywords:** Reconstruction and Rehabilitation, Disaster Risk Reduction, Disaster Management, Disaster Governance, Resilience.

# Amenity or Hazard?: The Effects of Landslide Hazard on Property Value in Woomyeon Nature Park Area, Korea

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#### Abstract

A nature park, which generally includes environmentally valuable natural landscape such as forests, mountains, rivers, and beaches, in urban areas provides valuable benefits for the public such as recreational opportunities and aesthetic landscape. However, residents near nature parks could be more vulnerable to natural disasters like floods, tsunamis and landslides. In order to understand the trade-off between amenities and hazard effect of nature parks, this study explores a case of the Woomveon Nature Park (WNP) in Seoul, Korea, which explored a catastrophic landslide disaster in 2011. The hazard and amenity effect of WNP before and after a landslide event is analyzed using a difference-in-difference approach with a random coefficient model. The results show that only the amenity effect of WNP exists before the landslide disaster, but the hazard effect of WNP start to overwhelm the amenity effect after the landslide. The housing price discount by the hazard of landslide is up to 10%, implying the importance of disaster prevention effort in urban open space design and management.

# Spatial Planning and Water risk management Interplay: The Case of Colombo, Sri Lanka

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#### Abstract

Colombo urban region locates in lower flood plain of Kelani River basin. During the last few decades, this region has undergone rapid and uncontrolled urban transformation. Thus, the pattern of urban growth had provoked an alteration of the inflow, outflow and the retention capacities of river basin at regional and local scales. Moreover, the space allocated for water resources such as rivers, lakes, wetlands, etc decreased dramatically and the urban expansion neglected the spatial coherence between land and water. As a result, Colombo urban region is highly vulnerable for water related risks. Spatial policy plans and regulations have been prepared for Colombo since early of the 20th century to provide a framework for urban transformation both at regional and local levels. This research premises that water and land uses are inextricably linked with each other, and, thus, the external pressures on either water or the land result in chains of impacts on both. The research concludes that the water related risks in Colombo are highly coupled with spatial transformation policies and the practices. Recent severe flooding events occurred in Colombo and flood losses and severe water pollution have once again highlighted the vulnerability of urban settlements, inefficiency of flood risk management measures particularly spatial planning approach and tools.

**Keywords:** spatial transformation pattern, water risk, integration

## Analysis on Preventive Effects of Flood Damage Mitigation Measures in Korea

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#### Abstract

There are structural and non-structural measures to cope with flood damages caused by extreme weather. The analysis of effects of flood damage mitigation measures conducted for policy decisions has limitations in terms of data and analysis method. This verifies the need for positive and empirical analysis of flood prevention policies. The objective of this study is to analyze the characteristics of flood damages in Korea and flood preventive effects of structural and non-structural flood mitigation measures by using empirical data. The analysis was conducted in the following order. First, we theoretically discussed structural and nonstructural measures of flood damage mitigation in Korea, based on which we selected hypotheses and variables. Then we conducted a qualitative analysis with the data of humanities/social/economic and precipitation characteristics as well as cases of flood damages, examining the changes and trends of space and time. Finally, we analyzed the flood preventive effects using an intervention time series model, and provided policy implications. The findings of this study are as follows. First, intervention effects of structural and non-structural measures analyzed through the time series data of the past 55 years all turned out to be significant. Second, as a result of analyzing the characteristics of flood damages, it turned out that structural measures did not reduce flood damages. On the other hand, for non-structural measures, the effects of prior planning based on weather information systems were proved. Third, based on the above, we provided policy implications for flood mitigation measures in Korea. For structural measures, we suggested reinforcing and managing the existing facilities, recovering naturalness of damaged rivers, and devising mitigation measures for urban areas. For non-urban areas, we suggested enhancing flood forecasting abilities, establishing legal system related to floods, and coming up with rational land use plans.

**Keywords:** Flood Damage Mitigation, Structural Measures, Non-Structural Measures, Intervention Time Series

### Mitigation of Urban Heat Island by Restoring a Covered Stream Kim, Yu-Mi<sup>1</sup>, Baek, Jong-I<sup>2</sup>, and Ban, Yong-Un<sup>3</sup>

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#### Abstract

The purpose of this study was to analyze the mitigation effects of heat island phenomenon through restoring the covered streams in a city center, where a rise in temperature in summer is most conspicuous. To reach this goal, this study was selected a covered stream in the center of Cheonaiu City in Korea and simulated its restoration based on the scenarios of preand post-restoration of the stream using ENVI-met. This study has conducted modeling and statistical analysis, using ENVI-met, so as to analyze the effects of decrease in temperature according to 4 scenarios on the covered stream. This study has found there has been the effect of decrease in temperature due to the restoration of the covered stream. Then the following suggestions may be derived. First, In the case of restoring a stream, it conduces to the mitigation of heat island phenomenon to increase permeable areas through using the close-tonature stream restoration technique. Second, the lower the building density and the more open space, the better the spread of cold air currents generated from the restored section of a covered stream.

**Keywords:** Urban Heat Island, ENVI-met, Urban Temperature, Mitigation, Climate Change

# The Critiques to Positivism Direction of Inquiry in Comprehending The Complexity of Governance in Managing Cities Competitiveness Faizul Abdullah<sup>1</sup> and Fatimah Yusof<sup>2</sup>

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#### Abstract

The complexities in managing cities are real in the ethos of global cities competition and indeed, the governance of urban complexities are further compounded by the discoveries of new tangible and intanaible determinants, vehemently contributed by the increased structural changes on a global scale ceased to be the main axes and reference points in societal organization. Whilst deterministic about deploying competitive cities interventions, the initiatives have always exposed local authorities to other related issues in the governance of complexity, which usually infers to their organizing capacity in attaining organizations competitiveness. For most modernists' scholars, they tend to gareed that learning is associated with efficiency and thus, it exposed organizations to learn new impositions of social artefacts. Exaggerated from realist ontology definitive foundation of structural functionalism, it clearly underlined Weberian positivism bureaucratic efficiency, which echoed local authorities in attaining the balancing act between 'de jure' and 'de facto' that constitutionally empowered in managing cities in the ethos of globalization. On the contrary, the realism in local authorities suggested otherwise, which perhaps lead to epistemological debates on the governmentality. Apparently, local authorities are facing dramatic challenges not only reframing to achieving global interventions on cities competitiveness and urban sustainability interventions – de jure; but also intensely faced-off with severe ignorance, resentment and dissonance from the entire workforce itself – de facto. As such, it warrant this paper to explore the validity on the dominant used of positivism direction of inquiry among social sciences researchers' on organizational bureaucratic efficiency, when most positivism line of inquiry researchers suggested that local authorities are learning organization entities, or is it so?

**Keywords:** Learning organization, positivism causal law and heretic behaviors

# A Metaphor Building on Site Interpretation: A Case By Attaching The Traditional Chinese City Understanding (Cheng 城) onto The Hakkas Tu'lou Co-Housing Building in China's Red-Socialistic Episode of CCPC Construction

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#### Abstract

The understanding, Cheng 城 is a metaphorical projection of the autonomous social function applied onto the physical understanding of city. In the cheng-shi, the traditional Chinese notion of cities, the collective assembly undergone their socialistic mutual help within their physical boundaries while as the English understanding of "city", "township" or Greek "polis" percepts taken, cheng may be acquired to convey that autonomous function of the societal mechanism, which carried out socialistic accumulation by means of the internal dynamics which settled within the united integration. Cheng thus physically projected on the everlasting existence of traditional Chinese society contributed into modern urbanism that refers to an institutional identity enclosed within physical faculty. Chena, this up-to-dated metaphor, as it applies onto the traditional understanding of cities, let's take an example to project cheng as a metaphor on tu'lou, and thus tu'lou seems to be a juxtaposition of the ancient functioning of autonomous city as well as a mega volume of building construction. By taking these two sides conceptual juxtaposition, we therefore may deliver the real notion of a certain particular object, which makes the dialogue effectively preceded in a simple and modern sense. By applying the cognitive theory of metaphor, I am to reason that an idealistic metaphor building is a symbolically collective construction of memory that not only kept something real within the enclosed boundaries but also in attached the living features onto the building form, by means of the cognitive gestalt stakeholders acknowledged their long lasting ritual to the mythological meaning. Hence a well-performed metaphor ritually indebted to those who settled within: while the correct metaphor carried out the idealistic performance of cultural heritage that will projected on the existing ruin or building construction and that symbolically transforms the flesh and blood's virtue memory into the concrete solidification. Thus as the red-socialistic ideologies was prevailing in the red China, CCP's People's Commune's spatial interpretation as well to projected in scenario that hereby I am to illustrate.

**Keywords:** metaphor, socialistic cooperative, cognitive gestalt, endogenous modernity. People's Commune

### The Evolvement of Brand Identity of Langkawi Island, Malaysia Mohd Fadil Mohd Yusof<sup>1</sup> and Hairul Nizam Ismail<sup>2</sup>

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#### Abstract

The purpose of this paper is to investigate the brand identity development efforts of Lanakawi Island as one of the most prominent and well-auarded tourism destinations in Malaysia. It will be viewed from the historical perspectives for the last 35 years since 1980's until the present time as to how this evolvement influence the formation of its brands identity and later, existing destination image. Based on in depth interviews with 11 different level of managers of separate divisions for destination management organizations (DMOs) in Langkawi Island, Malaysia, theoretically, the findings provide an opportunity to expand the knowledge of destination brand identity development and the involvement of DMOs in influencing image making over time. Practically, the findings indicate three key important antecedents of brand identify development efforts related to (1) the effects from multiple positioning themes and slogans, (2) lack of brand coordination, and (3) brand leadership issue. These empirical findings provide new insights in enhancing the theoretical aspect of managing destination brand including its close relationship with issues faced by destination marketing organizations in dealing with various stakeholders involved. Thus, using the case study of Langkawi Island, the context of multiple identities or image fragmentation is importance to be understood due the different perceived ideas on how the image should be projected according to stakeholders and market seamentation.

**Keywords:** Brand identity development, Langkawi, Malaysia, stakeholders, branding slogans, DMOs

### Divulging the Challenges Faced by Urban Based Tour Operator in Malaysia Zatul Iffah Mohd Fuza<sup>1</sup>, Hairul Nizam Ismail<sup>2</sup> and Sulaiha Mohd Isa<sup>3</sup>

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#### Abstract

Information and communication technologies (ICTs) have transforming tourism globally and undoubtedly changed business strategies and practices. Research trend in ICTs are mostly related with its adoption and models such as technology to performance chain and unified theory of acceptance, use of technology and theory of diffusion of innovation, etc. Still there is a need for research studies regarding intermediate players, specifically tour operators in the tourism industry about adopting the changes of information and communication technology to enhance the efficiency in service delivery towards business resilience. In this paper, we discuss the internal and external challenges of tour operators in Malaysia. Internal challenges are grouped into staff and financial types, while external challenges include customer demand and expectation, competition through globalization, deregulation, growth of technology and government support. The literature discussed the ability of tour operators and travel agents to sustain their competitiveness or remain in business due to the rapid changes in technologies. The findings of the study indicate that tour operators face a plethora of internal and external challenges upon updating the ICTs changes in ensuring business resilience.

**Keywords:** Challenges, Urban, Tour Operators, Tourism, Information and Communication Technologies (ICT)

# The Unrestraint Hotels Development Impact in Yogyakarta City: Environmental, Social and Economic Impacts

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#### Abstract

The purpose of this study was to determine the impact of the development of hotels in Yogyakarta city both in terms of environmental and socialeconomic impacts. Yogyakarta city as one of the major cities in Indonesia today is experiencing rapid development progress. It is marked by the increasing development of local hotels in the city of Yogyakarta. Data from the BPS (Central Statistics Agency) showed from 2012 until 2013 the number of hotels in Yoavakarta City has increased. At the end of 2013 it is recorded 77 new hotel had its license issued by the Dinas Perizinan (Licensing Agency) of 104 hotels have already registered. This phenomenon has a significant impact is felt around the people, such as, in terms of a decline in groundwater level, the height of groundwater table Yogvakarta city from 2012 recorded has decreased by 20-30 cm/year, while in terms of socio-economic people's wells around the hotel drought, it would be difficult for the people to meet the needs of clean water daily as well as economic activities that require water will be disturbed, then this condition makes a social jealousy. The method used to study the environmental impact of the growth of the hotels is analyzing the secondary data from various instance and related scientific publications, such as a map of the RBI (Rupa Bumi Indonesia), the reduction in aroundwater level, and the data increase the number of hotels in the city of Yogyakarta. These data are overlayed in the form of integrated GIS map. For knowing the social-economic impact using qualitative methods such as in-depth interviews with some relevant correspondent. If the phenomenon of the development of hotels in the Yoayakarta city not controlled well, it would be a serious problem, whether viewed from the aspect environmental and social-economic. The impacts occur not only be felt in the short term, but also in the long term. The aspects of sustainability in the Yogyakarta city will be disrupted. The results of this research are a map of the distribution of the hotel in Yogyakakarta City 2015, a map of the affected area of hotels, distribution of Ministry of Energy and Mineral Resources monitoring walls, hotels density classification, and groundwater graphics level decline in 2011 to 2015.

**Keywords:** Yogyakarta City, Hotels Development, GIS, Environmetal and Social-Economic Impacts.

### Stakeholder Analysis In Organizational of Community-Based Tourism (CBT) Siti Mariam bt Ismail 1, Nor Hazliza bt Abd Halim<sup>2</sup>

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#### Abstract

This research focuses on the perspectives of participants on communitybased tourism (CBT), based on the stakeholder theory. The research examined the groups of decision-maker, and the women organization involve in the Community-based Tourism (CBT). The techniques consisted of the assessment of scenarios, in-depth interview, and discussion. The three main research objectives of the study were to find the overall perspectives of the main stakeholders towards CBT, their expectations for future CBT: and women development; and the factors which influence their perspectives. The results show similarities and differences among the stakeholders. All groups of stakeholders suggested that the best and most successful CBT should involve the community especially women group and maintain the community's benefits and life style. The shared management form is the most preferred although the community group should take most responsibility for CBT. Each group had a different emphasis concerning the first step in development of CBT. Factors which most influenced the decision makers were their aesthetic and moral values while the operators' which is women group were more driven by moral and economic values. This study attempted to find stakeholders to successfully progress the CBT. It is anticipated that the results from this study could guide the future research on CBT in general and could aid the practice of successful CBT.

**Keywords:** stakeholder analysis, development, women organization, community-based tourism

# The Challenges of Private Sector-Led Mega-Scale Development Projects: The Case Of New Songdo City in Korea

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#### Abstract

In recent decade, there have been a remarkable increasing number of mega-scale development projects around the globe. Driven by national agenda or its long-term, capital-intensive characteristics, such projects are, in many cases, led and financed by public sector. However, with the growing importance of private sector in urban development, there have been greater participations of private sector in mega-scale projects. Korea is of no exclusion in the wave of recent mega-scale development boom and the increasing participation of private sector in such development. Notably, the development of Korea's New Sonado City on a 1,500-acre reclaimed land is considered as one of the largest private sector real estate development projects in history. During the past decade since first groundbreaking, the project developer has been faced with various obstacles during the course of long timeline and there are aspects which the private sector exhibit more vulnerability than the public sector in undertaking such mega-scale projects. The New Songdo City project presents lessons that financial dependency and granting of development right to a single developer can delay the project and the public sector may be accused of favoring a specific company. Moreover, lack of public investment can cause public sector to make minimum effort to financially stimulate the project. The study concludes that the public sector should take control of projects of this size and of national importance and not turn to private sector entirely to achieve public ends. The study also concludes that the public sector should have a financial stake in the project itself to be fully committed to the project even when there is a change in government in power and to enable a stable, long-term financing of the project.

**Keywords:** Songdo, private sector-led development, mega projects

# From Border Opening to Cross-Border Cooperation —International Trade and Foreign Direct Investment Structure of Border Provinces Li Xiaoxi<sup>1</sup>. Lu Yisha<sup>2</sup>

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#### Abstract

Since the late 1980's, the Border Opening (BO) policy has been an important means of trying to promote border regions' economic development level for China, and one of the most important objectives is to expand international trade and attract foreign direct investment. This paper tries to summarize the changes of national BO policies and their effect on international trade (partners) and foreign direct investment (investors) of border provinces. First of all, it sorts out border opening policies of central government from 1980's, and figures out 3 features: (1) local governments are authorized little power in border controls from central; (2) BO policy expands in space, from border cities to border provinces; (3) the BO policy aims to increase cross border trade transfers to Cross-Border Cooperation (CBC) policy with multi-objects. Secondly, it analyzes the changes of international trade (partners) and foreign direct investment (investors) structure, and Heilongjiang (northeast), Xinjiang (Northwest) and Guangxi (southwest) are selected. Result shows that, international trade and foreign direct investment have been largely increased in CBC period, and shown different characteristics — crossborder regionalization of Commodity and globalization of capital. Thirdly, it sums up the dynamic mechanism of structure evolution of international trade and foreign direct investment of border province, and argues that the differences of spatial scale between international trade and foreign direct investment comes from distinct medium of commodity and capital and resulting from implementation of CBC policy. Last of all. decentralization to local governments is suggested for promoting outsideoriented development of border provinces and endogenous development and provincial capital cities should be given more attention.

**Keywords:** Border Opening (BO) policy, Cross-Border Cooperation (CBC), Border Provinces, International trade and Foreign Direct Investment

#### Designing Public-Private Partnership for Bontang Industrial Estate

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#### Abstract

Bontang Local Government has planned Bontang Industrial Estate (BIE) to accommodate oil, gas, condensate and other industries. The estate will need investment for about IDR. 2.27 Trillion while the total annual local aovernment budget is near to IDR 2 Trillion. Moreover, the estate has to be operated in a business manner while the local government officers have a culture in non-profit organisation as part of bureaucracy. However, the BIE feasibility study 2013 has determined that the estate will generate economic multipliers boosting the city development. Therefore, a partnership among government and private parties should be determined and accommodated in a proper cooperation arrangement. To design the partnership, we review literature, interview related private parties and confirm opinions of the private parties to the governments. A content analysis was used to assess information from the interviews. Considering the final outputs, BIE should be organised by a pure private enterprise or Ltd. to ensure the economic viable of the estate. The Ltd. is a partnership amona the government and private parties via shareholders. The government can still hold a majority share with special arrangement in investment scheme. For the initial investments, the government can use its assets valued as 51% of total share while private parties can inject cash money equal to 49% of the total. With this capital arrangement, the estate can be operated with initial investment for about IDR, 267.11 Billion on 244.97 Ha land. This initial investment can be profitable with IDR. 650 Billion NPV, 19.93% IRR and 13.95 year PP.

**Keywords:** Industrial Estate, Organization, PPP, Investment, Development

#### Community-based Urban Risk Assessment Using Mobile GI Tools Ayman M. Ismail<sup>1</sup>, Mohamed Meselhy<sup>2</sup> and Mona Shaban<sup>3</sup>

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#### Abstract

For over 2 decades, GIS systems and spatial analysis techniques have been playing a major role in Urban Risk Assessment and Risk Modelling on the macro level. However, on the local community level, lack of data input resources, combined with the community's illiteracy add to an ambiguous level of risk perception that does not match the increased reliance on complex models. Crowd-sourcing and mapping have become a major hands-on tool for community input in many urban applications. With many problems hampering urban risk reduction and assessment in Egypt, This paper shows how the hand-held communication instruments and applications can be used to spatially represent a community's riskperception within an overall approach for risk prioritization and assessment. Using a case study of a local community in Fayoum's City Centre (90 km south of Cairo, Egypt), various risk and vulnerability indicators will be assembled and spatially linked to a GIS do derive and an ordinal ranking of risk indicators. Data input was gathered from users and shop owners of a traditional crowded bazaar using an easily accessible and user/costfriendly collection tool which is Smartphones. With some criteria, Collector for ArcGIS v. 10.3 by ESRI was chosen as the most appropriate application for the research objective. The crowd generated inputs were compiled using online ArcGIS servers to produce a final urban risk assessment maps. The used process involving architects/planners showed how they are a key players to bridge the gap between social media, technologies and mobilizing local community groups.

**Keywords:** Urban and regional planning, spatial planning, GIS, decision support system, Urban Risk Management, Mobile GIS.

# Wards-app: Improving Local Area Administration through ICT and Citizen Partnership

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#### Abstract

Indian cities are sprawling day by day and every city has grown so big in terms of population and demand, that it has become a mammoth task for the local administration to manage and monitor these cities. With the changing aspirations of citizens and a constant demand for better municipal services, it has become necessary for the local administration to reach to its people and make an effort to interact with them directly. In spite of the presence of local councilors and Ward level administrative offices, Indian cities have largely been accountable to the Municipality or the Head Office of any Urban Local Body. Managing the aspirations and Benchmark expectations of citizens have become a major challenge for local councilors as well as Mayors, Municipal Body, Departments of Municipal services, as well as Infrastructure Service providers to manage this change and hence manage resources, develop strategies and participate citizens in the process of managing cities. This working paper discusses an effort taken up by our organization for developing web/mobile application for the citizens of Ahmedabad, focused on Ward level Governance and Change Management, wherein citizens of a specific ward can 1) Connect 2) Post information 3) Register needs, demands as well as complains regarding the services to be provided by the Municipal Corporation. Not only this, it also works as an application for creating participatory groups within the same ward or between neighboring wards for strengthening social and cultural infrastructure of the city. From Governance point of view, the local ward councilor as well as ward office can connect to its citizens and collectively communicate, prioritize works, and monitor progress of the ward through citizen's feedback system. Wards-app is a Web & Mobile friendly application, which adapts the use of Online and traditional survey methods, Key Performance Indicator KPIs and Grade based Feedback system, includes Qualitative Indices measured along Quantitative Indices & an Open Dynamic Framework structure to include Administrator and Citizen Feedback within the portal. Based on the concept of decentralization and e-governance, encouraging Open Data Systems and Citizen Participatory approach to Governance, Wards-app is an elaborate IT based Interactive tool, bridging citizens to its local councilors, respective ward offices and local administration effectively and efficiently.

**Keywords:** Wards, Governance, citizen participation, IT, management

# Institutional Setting of Transit-Oriented Development in Indonesia Related to Its Socio-economical and Socio-political Context

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#### Abstract

Transit-oriented Development (TOD) concept has already recognized and accepted by the Indonesian government as one of sustainable transportation system and mitigation to overcome problems of traffic congestion and urban sprawl, and other consequential problems such as pollution and economic inefficiency. However, the adoption of other successful TODs is still limited to the planning and design concept only. While the conducive institutional setting that determines the planning and financing, needs scheme that workable for public sector and private sectors. This paper describes and analyzes the importance of institutional setting towards TOD implementation in Indonesia related to its socioeconomical and socio-political context, and envision the needs for a reformation of transport policy and spatial planning in order to effectively involve private participation for TOD implementation. The study is based on literature review about institutional aspect of TOD and review of existing policy and regulation of transport and spatial planning in Indonesia. Study includes views from different stakeholders in Indonesia, gathered from interviews. The decentralization policy and the rising of awareness against corruption in Indonesia bring other dimension and dynamic to this institutional setting. The paper identifies the differences of TOD institutional setting from different context and proposes in what way the contextualization of TOD can be applied to Indonesian transport policy and spatial planning. Private initiatives from experienced local and international private actors such investors, transit agencies, technology provider or other roles need to be placed in an institutional arrangement that ensure the benefit for both public and private sectors.

**Keywords:** Transit-oriented Development, institutional setting, transport policy, spatial planning, Indonesia

### Impacts of Changing Urban Form on Hydrology; A Case Study of Mumbai Madhura Yadav <sup>1</sup> and Bibhu Kalyan Nayak <sup>2</sup>

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#### **Abstract**

Asian coastal cities have become economic hubs due to increasing investments & population. With population growth and diminishing natural resources, it is necessary to protect the fragile coastal ecosystems. Mumbai, a city on the western coast of India is being taken as a case study for this research. The city with 18.4 million population & 437.79 sq km area has 300 years history of evolution & growth in south Asian region. Mumbai was developed out of seven islands with natural waterways. The city has grown over an estuary region. Hence the drainage is critical & sensitive. Rapid expansion of urban sprawl has affected the natural hydrology of the place and altered land form. As a result, in July 2005 flooding, the worst-hit areas were along Mumbai's Mithi River that flows through several central business districts built on reclaimed land. However, a neighboring vernacular settlement, called Chuim, in the same area of the city, withstood the flooding due to careful design and response to natural drainage pattern. In addition to that the settlement has also managed to retain its urban form through public participation. The study investigates the impacts of urban form on hydrology in fast growing coastal cities like Mumbai and concludes that people's participation & responding to natural ecosystem can reduce the risk of urban flooding significantly.

**Keywords:** Urban flooding, urban land form, coastal cities

### Critical Review on Structural Approach of Living Laboratory in Campus Sustainability

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#### Abstract

Sustainable development is an elusive and wider concept engaging the social, environment and economics aspect. Engaging the Institute of Higher Education (IHE) with their function as teaching learning and research institution has unique roles on how to translate and incorporate sustainable development into practice. A Living Laboratory defined as a user-centered, open-innovation ecosystem, often operating in a territorial context, integrating concurrent research and innovation processes within a public-private-people partnership. The framework model of living lab aims to develop the holistic development of the concept, provide conducive and applied research environment as a test-bed. This paper will discuss and analyze the potential of a living laboratory in the territorial context of campus sustainability. Critical issues and the challenge of the integration of the teaching, learning and conducive research environment and also the campus operation will discuss interchangeably. This paper also discusses the challenge of multi-disciplinary, interdisciplinary, trans-disciplinary and intra-disciplinary approach in operating the living lab approach in IHE. The Living Lab approach gives an opportunity to develop a much deeper understanding of how the various components in their environment operate and interrelate in the context of the field of sustainability science. In the research community, the Living Lab concept is growing as a potential mechanism to stimulate an innovative environment in order to produce a more robust result output that resulted from the insight of the innovation process. This paper will challenge the interrelated external framework between education, research and service or operation for the establishment of a Living Laboratory in Campus Sustainability. The paper also highlights the important role of holistic system thinking in a Living Lab environment.

**Keywords:** Living Laboratory, Sustainability science, Campus Sustainability, innovation

### Eco-cities as an Assemblage of Worlding Practices Zack Lee

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#### Abstract

Eco-cities are gaining attention in policy and academic circles over the past few years. Yet they pose difficulties as objects of study since they have been diversely defined and implemented. This paper argues that eco-cities are better understood as an assemblage of worlding practices. Combining these two concepts foregoes the emphasis on the eco-city's physical structures and focuses more on its policy environment and its relations with other locations. The case study being examined is the Philippine's Clark Green, the country's first eco-city project. Its main proponent is an independent government agency, the Bases Conversion Development Authority (BCDA), tasked with developing former military locations for civilian uses. Their vision is to create a world-class project built by international stakeholders in order to elevate the status of the Philippines and the Filipinos. They have chosen to emulate the Songdo International Business District in South Korea as their benchmark model. Not only are they adopting the ideas of a smart city but also similar strategies to enter the international education and logistics industries. The paper will show how the BCDA uses the eco-city idea as a tool to enter various national and international discourses that extend beyond the project's geographical boundaries. Yet the strategies and visions of an independent governmentowned corporation are tempered by challenges from local stakeholders, conflicting national priorities, and failures from similar policies applied elsewhere. The paper highlights the need for worlding projects to be embedded in their own national context for greater policy coordination.

**Keywords:** Eco-cities, Philippines, worlding practices, policy assemblage, Clark Green City

# Correlation Study of Community Party Walls and Migrants Population Based on the Study of Two Community in Shanghai

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#### Abstract

In the Planning and construction of community, clear and definite public space is a necessary, and all community residents should be responsible to the public space. In China, however, with the acceleration of urbanization and the frequency migration of the residents, the responsibility for community public space has become blurred. Community wall construction was an Effective method for community governance, and now it was also used to delaminate of "fuzzy responsibility public space and Facilities", which were considered to be open and shareable for the whole community when they were constructed. Thus, several problems appeared, such as the Residential searegation and the Security problems. Based on the six census data of Shanghai's communities and field research, two typical community was selected for the comparative study: the rental rate was 80% and the self-occupied housing rate was 20% in North Sichuan community, while the rental rate was 20% and the selfoccupied housing rate was 80% in Quyang community. Finally, by associating the spatial distribution of communities walls in two communities, this paper eventually 1: found a complex relationship between community residential structure and spatial distribution of community walls between buildings; 2, indicated that the community walls reflected the community property cognitive differences between different resident groups; 3, put forward some management recommendations under the existing regulatory framework accordingly.

**Keywords**: Party walls, Residential segregation, Correlation study

#### Appropriate Urban Livability Indicators for Metropolitan Johor, Malaysia via Expert-Stakeholder Approach: a Delphi technique

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#### Abstract

Metro Johor is one of the fast emergina metropolitan urban centers where its current progress and spatial transformation have made it a key player in the economic growth of Malaysia. The recent creation of the Iskandar Malaysia, an economic strategy which aims to be a global player as potential destination for high-value investments, has certainly added social, environmental and economic stress to its urban citizens. This paper intends to develop urban livability indicators for Metropolitan Johor anchored on the changing urban complexion in the face of climate change, economic, governance, social and cultural dynamics, among others. The urban livability conundrum of Metro Johor illustrates that indicators are imperative, especially policy-based indicators, which would aid to scale-up the desired progress according to urban livability metrics. The study involves iterative 3-rounds of Delphi blind survey with Likert scale's degree of agreement, and finally assigning weightings to each subindicator. Thus, with the expert-stakeholders involvement, constituting broad-sectoral community representation, a robust and appropriate urban livability index for Metro Johor was generated - a comprehensive framework yet prospective benchmark in appropriating timely policy decisions that would redound to the benefit of urban citizens ensuring a livable Metropolitan Johor.

Keywords: Urban Livability Indicators, Metropolitan Johor, SJER, Delphi Technique

#### Research For The Shelter Planning Based On Self-Saving In Urban Residential Districts

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#### **Abstract**

With increasing population density in Asia, the potential higher risk was resulted from the residential districts with the higher plot ratio, especially in some megapolis (eg. Beijing and Shanghai). Presently it is more difficult for the rescue during the disaster because the decreasing of the safe space among the buildings are resulted from their more height and density. So the immediate self-save is more important than before during the disaster in the residential districts, and its realization depends on the reasonable shelter planning and its management system. In this study, the factors related to the self-saving were analyzed and concluded by the related the literatures retrieval and case study, and the case study was done by the indepth interview and questionnaires in three different residential districts in Shanghai. It was found that the following factors related to the self-saving should be considered in the shelters planning: the distribution of the shelters including their space accessibility and area, evacuation passageways, the facilities of the disaster prevention (such as fire hydrant and guide signs) and subsidiary facilities (such as vegetations for the disaster prevention), the social cohesion, aware of the self-saving and disaster prevention. Simultaneously, the shelters planning countermeasures based on the selfsaving were proposed, which provided some theory basis for the studies and planning of the security residential districts in future.

**Keywords:** Urban Residential Districts, Shelters Planning, Calamities, Selfsaving

# Dhaka: An Example of Landuse Succession Where Market Forces Supersede Planning Regulations

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#### Abstract

Redevelopment, that represents an adjustment process by which housing capital is gradually replaced, is taking place in the planned residential areas of Dhaka, the capital of Bangladesh. In the process of redevelopment, historic density is being upgraded to more modern market density. As the land is redeveloped to new density levels, the occupants of the land often change. Such combined changes in density of use and occupancy frequently are referred to as landuse succession. The paper investigates the nature of landuse succession in planned residential areas of Dhaka city considering Dhanmondi residential area as a case that represents the overall situation of the city. To track the changes and the role of planning regulations over the last six decades since the establishment of Dhanmondi, the study depends mostly on secondary information and authors' observation; and to add qualitative essence, in depth interview with senior citizens of the area has been accomplished. Through comprehensive literature review, landuse succession theories have been analyzed carefully, and in light of that, the changes observed in the study area have been explained. Landuse succession observed here fits best with optimal FAR concept where very expensive land redeveloped with higher density has generated greater residual value to the land by offering the property to the highest bidder, the commercial occupants. The succession has not been controlled by planning regulations rather been leadlized by modified ones.

**Keywords:** Landuse succession, Residential Area, FAR, Densification, Commercialization

### Liveability Planning for Cities: Within the Islamic Framework of Maqasid Al-Shari'ah

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#### Abstract

This research introduces a new dimension of town planning practice via Liveability Planning. Town planning in Malaysia has so far been very physical and policy-biased. The soul or the spiritual component in the form of liveability, quality of life and sustainability has been lacking. That is why environmental problems, depletion and destruction has now become the order of the day where disasters, calamities and other environmental problems like floods, Tsunami, air pollution etc. are worsening and making urban living unhappy. Indeed liveability, quality of life and sustainability is one continuous process; a continuum. To overcome this scenario, inevitably the spiritual aspects need to be embedded into the conventional values and indicators of liveability and quality of life. The international liveable indicators as well as the Malaysian sustainable city indicators seem to have concentrated more on economic and social wellbeing aspects of quality of life but lack religious and the spiritual elements. This gap is thought to be the determining factor of enabling human beings to live in harmony with nature and to avoid environmental disasters. This research engages in the combined methodology which involves Focus Group Discussions, Interviews and Perception surveys. Both the quantitative and qualitative methods will assist in the formulation of the liveable city planning methodology. The five tenets of the Magasid Al-Shari'ah will be the measurement to gauge at which liveability point a town falls under. Since human lives are in two integral parts; the physical and the soul/spiritual, an analogy of the Ying and the Yang is appropriate where quality of life should strive towards the fulfilment of both these aspects. Hence the values and objectives of the Islamic Laws or Magasid Al-Shari'ah will be incorporated into the conventional town planning practice and to be embedded in the conventional liveability indicators to render cities liveable.

**Keywords:** Liveability Planning, Liveable indicators, Liveable city and Magasid Al-Shari'ah

### Work Capacity of Labor, Regional Impacts, and Climate Change Junbeom Lee¹and Dong Hyun Kim²

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#### Abstract

Climate change is an important factor of local and regional economies in the future. It brings changes to basic conditions such as life patterns, working condition, and industries. Especially, the rise of temperature will bring various impacts to individual labor. As blue-collar workers are vulnerable to heat stress. As impact of climate change becomes greater, the more exposure to heat stress expected, which will damage the work capacity of the wokers. Work capacity means the work efficiency per hour for each individual. The work capacity of labor is a crucial factor to labor productivity and regional economies considering the climate change impact. It means that the additional time or labor will be needed to produce the same thing in the vulnerable occupation to heat stress. The purpose of this study is to estimate the future work capacity of RCP 8.5 scenarios and discuss its regional impacts from the perspective of occupational structure in Korea. To estimate work capacity of each occupational group, we use the exposure of physical working risk in the Korea Working Condition Survey. Each work capacity of occupational group is classified into five categories, from 100watt to 400watt as hard working and high exposure to heat stress. This study suggests the relationships that exist among individual labor, working condition, and climate change impact. For the sustainable regional economies, the occupational structure of the region should be more diversity. Also, the regional labor policy must consider climate change and the relavant change of working conditions

**Keywords:** Work Capacity, Climate Change, WBGT, Occupation

### Climate Change and Spatial Inequality of Vulnerable Labors in Korea Heonyeong Lee<sup>1</sup> and Dong Hyun Kim<sup>2</sup>

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#### Abstract

While it is assumed that climate change has far-reaching impacts on every individual in a society, the degree of influence of climate change experienced by individuals is discriminatory. Individuals who experience particularly heavy damage on climate change can be defined as vulnerable class and the vulnerability have a functional relationship with an exposure to climate change, a sensitivity, and an adaptive capacity of individual. This study attempts to explore vulnerable groups in terms of health and safety, and their spatial distributions based on individual characteristics of economic activities. The "occupation" performs a central role in this study as a representative measure of individual economic activities. Considering that there is a lack of reference studies, we take a data-driven approach employing the Korea Working Condition Survey (KWCS) data. The analysis process is composed of two steps. In the first step, we identify vulnerable occupations, those with relatively negative anticipated outcomes on health and safety. We draw a vulnerability index of the individual occupation's characteristics and identify the vulnerable occupations. Through this process, we finally identify 27 occupations as vulnerable, which correspond to 16.5 percent of the total number of occupations. At the second step, we explore a spatial distribution of occupations vulnerable to climate change. As an exploratory spatial data analysis method, Local Moran's I index was investigated. Through the results, we find that there are spatial clusters of vulnerable occupations well matched with economically less favored regions in Korea.

**Keywords:** Vulnerable Occupation, Exploratory Spatial Data Analysis, Korea Working Condition Survey

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### A study of Use of Tradisional Market: Peunayong Heritage Site of Banda Aceh

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#### Abstract

This paper is an attempt to investigate the redevelopment of traditional market (fruits and vegetable) within Peunayong heritage sites of Banda Aceh. Peunavona is one of heritaae auarters which is known as China Town in Banda Aceh. The spatial planning of Banda Aceh (Qanun Tata Ruang Kota Banda Aceh) year 2009 - 2029 recognizes the area as trade and service precinct which hosts hotels, shops, restaurants, coffee shops, and many others. The shops in Peunavona are dominated by Chinese architecture which was developed during the earlier arrival of Chinese in Banda Aceh. Besides, these Chinese shophouses, Peunayona is also a house for traditional markets: fish market, meat market, and farmer market. The farmer market did not have a dedicated location and it was slum and dirty. After the 2004 Tsunami disaster, the market was reconstructed. The reconstruction, however, overlooked the effective uses of space. This is evident in the ways that only one of three storeys that is efficiently used by fruit and vegetable sellers. The rest are abandoned. Therefore, building upon the study on location, circulation, accessibility, and uses of the farmer market, this paper argues it is imperative for the market to be synergy with the development within heritage sites. The government of Banda Aceh should provide specific planning in accordance with heritage laws (Undang-undang Cagar Budaya) no.11 year 2010. So that, the redevelopment of traditional market does not deteriorate the role of Peunayona as heritage tourism icon of Banda Aceh.

**Keywords:** Redevelopment, Traditional market, heritage site, circulation.

# Online City-evaluation and Participation Platform Involving Governments, Citizens, Planners and Developers by Crowdsourcing Method Xia Nankai<sup>1</sup> and Cheng Shang<sup>2</sup>

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#### Abstract

It has been a durable and knotty problem to justify disturbed participation, integrate separate opinions and clarify fuzzy responsibilities governments, citizens, planners and developers in planning process as open intermediaries are lacked. To erase this dilemma, we develop an online city-evaluation platform by crowdsourcing method to initiate evaluation criterion with defined variables and weights, collect web users' data and publish their results overtly. Crowdsourcing method means bringing users together to communicate with each other and gather their individual contributions. All four types of users are motivated to participate in the evaluation and discussion of the cities or regions they are involved. First it represents default results calculated from municipal statistic data. Local qualified planners and developers are also invited to modify the criterion and generate their results with expertise or experience. Civic users then personalize their own criterion and upload results. The platform generalizes citizens' results and output the summaries.

This platform breaks the 'invisible barriers' between joint users through three aspects: to guarantee the just participation, it testifies the user's identity by real name certification or IP address location, permits all users to review overall results and browse other comments. Through the results, open discussion is raised by online public forum to help users exchange and interrelate their interest demands. Such feedback also help clarifying their own responsibilities as they realize objectively whether their subjective contributions are positive or negative to other participants' interests and to what extent their proper roles played in planning process influence other opinions.

**Keywords:** City-evaluation platform, crowdsourcing method, participation, interest interrelation, responsibility clarification

#### TRACK 3: BRIDGING URBAN RESEARCH AND URBAN POLICY (RP)

### Predicting Urban Sprawl for Rajkot City using SLEUTH Model and GIS Techniques

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#### **Abstract**

Unplaned Urban arowth along with population in the fast-growing urban world need to be monitored in order to have proper preparadeness plan for sustainable urban habitat. Thus Urban growth models are used as planning tools for the analysis of urban sprawl. These models play vital role in the planning process for the city. This paper presents a study that integrates the use of remote sensing, GIS and spatial modelling for predicting urban sprawl which has become one of the major challege in the fast growing world. The SLUETH is spatially explicit cellular automata model that has been used to simulate future sprawl of Raikot city. Sprawl has been predicted for 2031. Input maps for the built-up theme used for five years, i.e., 1980, 1992, 2001, 2005, and 2011; input layer for roads three years 2001, 2005, and 2011, one exclusion layer, land use layer for two years 2005 and 2011, one slope layer and one hill shade layer. It took seven days to calibrate each stage of this model and approximately took one month to calibrate the model for one scenario. The results of this study shows the possibility of urban sprawl, and the type of landuse that would converted to urban (built-up). Results of SLEUTH showed that organic arowth is predominant in Raikot, which shows major growth would occurre along the fringes of existing settlement. The sprawl is observed in the southern and the north western part of the city. This may be due to industrialisation. This study demonstrates the use of model - based prediction of urban sprawl in preparation of the master plan for the city.

## Managing Urbanisation and Urban Sprawl in Malaysia by Using Remote Sensing and GIS Applications

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#### Abstract

In the global era, more than half of the world population live in urban area. With rapid urbanization growth where the highest percentage concentrate in Asia, a relevant approach is needed in order to eliminate the possible threat that occurs after urbanisation took place; the urban sprawl. Urban sprawl is a popular term in academic discourse and has a long history but till these days, the concrete definition of this term is not yet configured. Many studies of sprawl have rooted back in non-Asian countries making the solution for sprawl is not suitable to be implemented in term of theories and practice. This research attempts to study the measurement of sprawl by using these geospatial indexes with Remote Sensing and GIS approach. The SPOT-5 images with 2.5 meters resolution were used to analyse the growth of sprawl in Kuala Lumpur metropolitan due to its high urbanisation rate. The findings show that Kuala Lumpur is a sprawling city. It is anticipated that this research will provide a new direction in urban sprawl studies and represent a robust analytic approach for characterizing urban development on the city scale at once as well as promoting a city via Remote Sensing and GIS technology.

**Keywords:** Urban Sprawl Measurement, Geospatial Indices, Urbanisation, Remote Sensing, GIS, and Asian Cities

### Quantifying Urban Sprawl for Rajkot City using Geospatial Technology Shaily Raju Gandhi <sup>1</sup>, Shashikant A. Sharma <sup>2</sup> and Anjana Vyas<sup>1</sup>

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#### Abstract

Urban sprawl is one of the avidly urban issues today. "Sprawling" means the spreading of urban area towards rural area surrounding it. There are different social and economic factors which led to urban sprawl. The study of urban sprawl in this paper attempts to measure the sprawl of urban areas into rural areas and the type of sprawl and the pre-dominant causes responsible for sprawl. It first reviews and analyses past research on the definitions of urban form, compactness and sprawl, and corresponding auantitative variables. Measures of urban sprawl will be identified and procedures will be developed to compute these indicators in GIS environment. The indicators of sprawl defined by (Galster et al, 2001) are considered as major characteristics of sprawl which have been adopted in this paper to develop a set of variables for quantification, characterization and dimension of sprawl. The study has been done on grid level (Grid Size = 500m x 500 m). The density index shows that in 2001 Rajkot had 9292 persons per grid of 500 meters x 500 meters which has decreased to 7394 persons per grid which shows that the population is moving from center to outer fringes. The value of concentration index has decreased from 0.56 in 2001 to 0.23 in 2011 which shows the sprawl development pattern. Centrality has been one of the major indicators of urban sprawl the value of centrality has been observed as 3.7 in 2001 and it has increased to 7.6 in 2011 which indicates sprawl.

**Keywords:** Urban Sprawl, Satellite Imagery, GIS, Urban Index

# Optimal Utilization of Remote Sensing and GIS Technologies for Addressing Ecologically Compatible Land Use Planning

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#### Abstract

In the present day spatial planning plays a major role in the development of the country. India being a country with a population of around 1.2 billion people, providing them with the necessary required infrastructure and services is a challenging task. Due to increase in frequency of natural disasters the proper land use planning is unavoidable. Preparedness for disaster is critical as it hits when least expected. The frequency of disaster has been increasing these days. The Ministry of Environment and Forestry has declared 29 Eco-Sensitive Zones and most of these areas are not easily accessible; thus, making the land use planning of these areas a challenging task. Due to the developments in Remote Sensing technologies we are able to acquire satellite images of these locations and through image processing, most of the analysis can be done. With the help of these technologies land use planning of these areas can be done with a great accuracy by including the disaster related aspects and thus making land suitability maps for these locations. Meeting the ecological compatibility while making a land use plan becomes challenging because of the conflicting goals and the uses of land. Main challenges faced are during the issues of resource extraction activities, infrastructure for settlement, recreational activities, sustaining the composition and structural complexity of ecological systems, etc. But use of remote sensing and GIS can provide analysis results with great accuracy thus helping in site selection for future development of these regions in more secure manner.

**Keywords:** Eco-Sensitive Zones, Land Use Planning, Remote Sensing Technologies

### Spatiotemporal Land Use and Land Cover Change in Major River Basins in Comprehensive Development Area

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#### **Abstract**

Urbanization has significantly transformed spatial configuration of landscape structure which triggered by population growth and government's development policy. Prediction of the future land use change is important to understand its future characteristics and consequences on the environment. Specifically it will disturb the ecosystem within catchment of river basin. The objective of this paper is to discuss the future land use and land cover change in major river basins (Sungai Tebrau, Sungai Skudai and Sungai Pulai) in Iskandar Malaysia region. The past experience indicates rapid growth of population and substantial of urban development has significantly changed the spatial structure of the region. It was tremendous changed of land use and land cover due to high demand for development. Remote sensing and GIS are the main tools utilized to conduct the analysis of the study. Logistic regression, analytical hierarchical process and CA-markov chain model are used to analyze the relationship of variables and formulate the future spatial changes. Then landscape index is used to analyze the spatial characteristics of the changes. SPOT images in 2000, 2006, 2010 and 2013 of the region are utilized as input data for the future land use and land cover change projection. The result indicates that diverse direction of development shows different character of landscape changes between the river basins within this region. There are significant changes of agricultural and natural lands converted into artificial land use in Skudai and Tebrau river basins. Moreover, there is high possible change of water body for development especially along the river banks and coastal zone in Johor Bahru city center. This situation could contribute to other possible issues such as degradation of ecological value, microclimate change and increase runoff water. As development in rapid progresses in this region, more artificial land uses will be spread out and put more pressure on the river basins. The projection in this study provides the possible landscape structure change and consequences on the river basins. Future development plan should holistically consider the characteristic of future development and effect on the environmental elements in the region.

**Keywords:** LULC, GIS, spatiotemporal, river basin, landscape index.

# Measurements and Promotion Suggestions of Pudong's Jobs-housing Balance by a GIS-based Network Analysis

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#### Abstract

Pudong New Area is a part of Shanghai and a experimental field of new policies, which was established as the first state-level new area in China. Pudong covers an area of 1397 km2, with an population of 5.4 millon, and the GDP (Gross Domestic Product) of Pudong in 2013 was US\$104 billion. Pudong is located east bank of the Huangpu River, and divided from the Shanghai by that river. To an extend, Pudong is an independent city politically, economically and geographically. Commuting is the main reason for traffic congestion in Pudong. Meanwhile, accessibility to jobs plays the utmost role in affecting the relationship between supply and demand of Pudong's housing market.

This study shows how a network analysis in a geographical information system (GIS) can be used to determine the accessibility to jobs of areas. The road intersections of several main industrial districts are picked up as the facilities. By using different modes of traffic, we build up networks for cars and rail transit. Unlike other network analysis, we can get quantitative results because the large quantity and even distribution of facilities. In conjunction with the housing market of Pudong, the reasonable degree of overall job-housing arrangement can be measured by this study.

This study shows housing areas with low accessibility make a considerable proportion in Pudong. As a matter of fact, the extremely low occupancy rate of Sanlin, Zhoupu, Huinan, Hangtou and Zhoupu, where were designed to be main housing area for Pudong, shows the scale of the problem. On the other hand, this study also suggests the rail transit strategies which were applied to solve the commuting problem used by Shanghai and Pudong government cannot be called a success. In fact, this study shows the accessibility by rail transit is much lower than accessibility by cars, which is quiet abnormal for an international central business district such as Pudong New Area.

At the end of the article, we try to give some promotion suggestions for this imbalance jobs-housing condition. Firstly, the location choice of housing according the accessibility to jobs should be taken into consideration as the very first time. Secondly, the rail transit policies and even the overall transport policy should be adjusted to achieve jobs-housing balance in Pudong.

**Keywords:** Pudong New Area, GIS-based network analysis, jobs-housing balance

# Sustainable City, Livable City, Global City Or Smart City: What Value Addition Should Smart City Bring To These Paradigms In Context Of Global South?

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#### **Abstract**

Expressions of urban settlements have transformed over the time from that of supportive habitats to destinations of high quality of life. Post Second World War, we have witnessed a sequence of urban development paradiams with specific and particular notion of development which have led to new urban metaphors. The predominant among these metaphors are the Sustainable city, the Liveable city, the Global city and the Smart city. A research to analyse what value addition each of these metaphors brought to urban development and internally to each other as they progressively evolved has not been undertaken. This paper attempts to bridge this research gap. A chronological study of these concepts has shown evidence that sustainable cities filled the gap left over the time by Liveable cities concept and Global cities filled the gaps in Sustainable cities concept and finally Smart cities concept which should ideally fill the gaps in the previous three. As Smart cities concept still remains fuzzy from the time of its genesis in 2000 to its travel from global north to global south in late 2000, this offers both an opportunity and a challenge. This is clearly shown by our research proposition. One other important highlight of the research is that all the four concepts have emerged in global north and with time travelled to global south. In the process of this transfer to developing countries and juxtaposition therein, the issues of global south such as equity, social justice, etc have largely remained unaddressed. Research concluded by showing how the smart cities discourse, definition and performance measurement framework can be used as an opportunity to address the gaps in the other development paradigms as well as include the challenges of the global south, hitherto ignored in the other metaphors.

**Keywords:** urban development paradigms, smart city, liveable city, sustainable city, global city, performance measurement framework, city rankings,

# Measuring Performance of Urban Farming for Sustainable Urban Development in the City of Surabaya, Indonesia

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#### Abstract

Urban Agriculture is an effort to realize the sustainable urban development with the focus to optimize limited vacant land for the farming activities. Urban gariculture has a positive impact on people's livelihood in urban areas, both in social, economic, and environmental perspectives. In addition, urban agriculture also helps to contribute to the urban greenery, healthy open space and food security. Surabaya city since 2009 has been implementing urban farming program that is designed to be developed in densely populated urban areas and do not have a large amount of vacant land. The targets of this Urban Farming Program are poor families, which spread over 31 districts in the city of Surabaya. The benefit of this program is to improve the food security of poor families through the fulfillment of nutrient availability and poor families independently by utilizing the yard for urban farming activities. Critical success factors must be considered this program for the urban sustainability, how to synergize the social, economic, and environmental benefits on the community level. The study is necessary to identify the important factors that must be considered in supporting the urban sustainability. The factors are used to analyze the performance of the urban farming activities on the community level. The importance factor analysis measure the performance based on the gap between the perceptions and expectations. The SERVQUAL instruments can be used to measure the performance of urban farming program. The data source is obtained by sampling to the community in the city of Surabaya that have implemented urban farming program. Thus the results of performance measurement of this critical success factors can be determined step forward to improve the urban farming program in the city of Surabaya.

**Keywords:** urban agriculture, urban farming, sustainable urban development, performance measurement

### Smart City Modelling On Green Open Space: Case Study Yogyakarta City and Batu City

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#### Abstract

Research and policy sometimes couldn't match each other because research has been done more advance and faster than policy implementation. Smart city is a model which has a primary point on using technology on helping city society. This research identify the environmental degradation on Green Open Space (GOS). The research takes two cities as locus Batu City in East Java and Yogyakarta City. Yogyakarta City is an administrative area of Yogyakarta Special Region with population dynamic and urbanization. In urban development often occurs annexation of rural areas that causes degradation of green open spaces in the urban fringe of the city. Further, it effects to ecological declining, psychological and public health. Other city, Batu City, is one of the biggest tourism place in East Java, Indonesia. It is an autonomous area in East Java. According to Regulation No. 11 Year 2001, Batu City has a city planning to realize Batu City as a secure, convenience, productive, and sustainable as an agropolitan city also as a competitive tourism city in East Java. This city also wants to realize a function as natural keeper especially for keeping water resource of Brantas River.The increasing of citizens also happen year by year and its space occupation is higher than before. In 1993, Batu City has 62,689 citizens and it is increasing on 2012 to 97,780 people live there. Green open space in Yogyakarta is 51.108 m<sup>2</sup> or 5.11 ha (only 1.6% of the city is 35.2 km<sup>2</sup>). This research put some sample of model in Japan and Taiwan as lesson learned. This research was done by primary and secondary data collecting, social media, and interview along the process. The result has shown that it needs more than 30% conservation and areen open space on both city and using campus as main role model.

**Keywords:** Modelling, GOS, policy

### Outreach of Pro-Poor Housing Programs and Projects: Is it Sustained? Gowthami Sai Dubagunta¹ and Sejal Patel²

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#### Abstract

Affordable housing for urban poor is one among the hot button issues among all policy makers and planners in countries of global south. Grand schemes with extravagant promises in the formal sector and gigantic hope for informal sector, to capture the opportunity at bottom of pyramid, are simultaneously trying to curb the problem of affordable housing shortage for urban poor. But, does the supply succeed in reaching and sustaining the targeted outreach to intended beneficiaries or has the government spending in the housing programs been rendered partly futile? In the Indian context this has remained unanswered. Even though private does not purposely seek to cater housing for lower income sections, yet large quantum of investment have been witnessed in housing for the urban poor. It is well known that in a free market tussle, the highest bidder is always the winner. Such investments have paved way for speculative investments by higher income groups in modest one room units originally meant for lower income groups which are later rented out to the needy. This has been a major reason for creation of artificial shortage of housing for poor. And the scenario is worse in case of public housing, where, half of the units are either left purposeless or used by ineligible users, largely due to risk of impoverishment and improper post occupancy vigilance. The magnitude of post occupancy problems being unexplored, the objective of paper pertains to looks at the challenges and issues in sustaining targeted outreach to intended beneficiaries in housing supply models for urban poor. The paper elaborates distinct challenges through three housing supply models in Ahmedabad, India. The models are Rehabilitation Housing, Subsidized Housing by government and market provided Housing. The method is mixed method i.e qualitative and quantitative research using primary and secondary data sources. The critical analysis of effective outreach is carried by studying policy rhetoric in each of the models to on ground veracity in the post occupancy stage of model by assessing end user satisfaction in each model.

**Keywords:** affordable housing, outreach to intended beneficiary, speculative investments, urban poor, government subsidised housing, markets provided housing, rehabilitation

#### Measuring the Dimensions and Attributes of Liveability of Low-Income Housing Communities in Nigeria

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#### **Abstract**

Housing is a basic human needs and its liveability transcend beyond the perimeter of the housing unit. The quality of the living environment is important for an individual's well-being. The factors that contribute to the inhabitants' satisfaction in a living environment are essential inputs in monitoring the success of housing policies of the government. This paper focused on the dimensions and attributes of living environment, such as housing units, neighbourhood facilities, economic vitality, social interaction and safety situation which affect inhabitants' satisfaction in the public lowincome housing estates in Minna, Niger State. Upon the empirical review, some attributes of liveability were extracted and formed the theoretical framework for this study. After that, a questionnaire was developed and administered to 400 household heads in the three selected housing estates based on stratified random sampling. A total of 366 questionnaires were returned representing a response of 91.5% and collated data was analysed with descriptive statistics and factor analysis. Results showed that residents are satisfied with housing unit and economic vitality but dissatisfied with neighbourhood facilities. Further results showed that social interaction was lacking among the residents of all three estates. Also, residents are apprehensive of their protection from the relevant agencies especially police protection. Hence, there is need for an immediate improvement of neighbourhood facilities in these housing estates such as road rehabilitation, water supply, recreational facilities provision and street lighting.

**Keywords:** Liveability, Low-income housing, Factor analysis, Niger State

#### Impact on Public Service Demands by Returning Rural Labors in County Towns in Central China

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#### **Abstract**

Urban-rural migration has been one of the hot topics during rapid urbanization in China. However in very recent years, a great number of rural labors returned to their homeland, and settled down in the county towns rather than original rural villages. As the aftermath, the social structure, employment mode and cultural preferences of the county towns, hereby, are changed dramatically, which then generated prominent influence to the demand of public service facilities. In some provinces such as Anhui, the new changes have been very significant and made remarkable impacts on urban planning practice, there is not yet sufficient research work on such an area. This paper focuses on this phenomenon. It aims to describe the socio-economic and cultural changes of the county towns with increasing returning rural labors, and then analyze the changing demand of public service facilities. Huaiyuan and Guoyana in Anhui, a central province of China, are selected as two typical cases, and questionnaire survey and face-to-face interviews are as main research methods. The findings of this research intend to provide valuable ideas to optimize planning practice of public service delivery in these county towns in the new era, which indicate that the number of medium-level demand facilities should be increased and the spatial distribution of education facilities, the improvement of the quality of the medical facilities, the promotion of the comprehensiveness of the cultural and entertainment facilities and the expansion of the commercial service facilities should be valued particularly in these county towns.

**Keywords:** Returning rural labors, Public service, Demands, Huaiyuan, Guoyang

# Study of Building Setback towards Spatial Planning post Tsunami in City of Banda Aceh, Indonesia

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#### Abstract

Rapid development of commercial activities in the new center region Banda Aceh City after Tsunami hit the Region in 2004 was the main cause contributing the emergence of mass commercial building blocks (shophouses). Ten years after the devastating of Tsunami, Banda Aceh has been emerging as amongst the fastest growing capital province cities in Indonesia. The growth of commercial buildings pays less attention to the provision of building construction, building demarcation line, spaces between buildings, and the pattern of building mass layout. The building setback is regulated by the government in order to provide the orderliness of the layout and building mass in the city. This research is aimed at identifying the presence of building setback, the implementation of regulations, and determining the prioritized strategy in structuring and monitoring building constructions in urban planning post Tsunami. The area of observation study is limited to the setting of buildings on the new road Muhammad Hasan Street, Banda Aceh. The method used in this study is mixed method; descriptive approach and analysis are taken into consideration. Qualitative data would be supported by quantitative data processing, and measurement would be utilizing by Likert Scale, whereas data analysis is done through SWOT which includes primary and secondary data. In addition, an analysis was performed to justify the strategy priority of building construction monitoring using AHP method (Analytical Hierarchy Process). The outcomes of SWOT Analysis are three options of strategy, they are: 1) to improve socialization, 2) to involve all technical elements and the community (stakeholders), and 3) to establish a steering team. AHP analysis generates the largest value of global priority, which falls to option 2, i.e. to involve all technical elements and community (stakeholders); hence it becomes priority of strategy to be recommended in monitoring building construction in the context of urban planning.

**Keywords:** Setback Building, Building Demarcation Line, Urban Planning Regulation, City of Banda Aceh

# An Integrative Micro-Scale Planning Methodology Based On Architectural Level: A Yilan Case, Taiwan

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#### Abstract

While urban construction in large scale has come to an end, fragmentation of spaces, lack of diversity, and the loss of collective memory have left scars in urban spaces that macro urban perspective cannot deal with. What could planning do for further plans? This paper attemps to address a micro-scale planning methodology concluded from a Taiwanese initially bottom-up methodological practice, in the era when micro-scale planning has not yet revealled in formal urban planning discourse. During our observation, the participatory planning skills are locally developed and involved in such a planning; boundaries between architecutre and planning are ambiguous, so it's named "micro-scale" in the first place. A case we raised to illustrate is Huang Sheng-yuan's works based in Yilan (Taiwan). According to our observation, in recent two decades, Hugna's spatial practice is divided in three phases: (1) 1994 -2000, architectural involvement cut into its city framework; (2) 2001 - 2005, micro-urban level constructions built based on his 'anti urban-superior' criterion; (3) 2006 - 2012, his hidden city constructed step into screen as his homogeneous urban creeds were followed and conveyed in every single work. In short, whileas the macro urban perspectives are set in prior to the micro-urban scale schemes, micro-urban planning is allowed to reform locality and city image afterwards. Thereby, Huang in the third phase, played the role of an urban planner, unconsicously, engaged in urban design and part of policy making process thus "systematically" made out Yilan image to what he thought it should be like. Huang's Yilan "modern" experinece is yet under discussion as academic discourse. However, his architect awareness of indigenous culture that shaped a bi-centered determination of Yilan's further on development fixes the moden planning problems of mega city projects.

**Keywords:** Micro-urban, planning methodology, diversity

### The Impact of Iskandar Malaysia Development on Urban Amenities Muhammad Rafeq Razak<sup>1</sup>, Foziah Johar<sup>2</sup> and Rabiatul Adawiyah Abd Khalil<sup>2</sup>

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#### **Abstract**

For major cities in Malaysia, globalized urban images are enthusiastically pursued by urban policy and explicitly depicted as a blueprint for a civilized city life. These developments have implications to physical and socio-economic developments as well as cultural aspects of cities in Malaysia. This is especially true for Iskandar Malaysia (IM), a new corridor development envisioned to be a "sustainable conurbation of international standing". The whole initiatives targeted an enormous increase in socioeconomic development indicators such as populations (222%), workforce (233%), and per-capita GDP (210%) during a 20-year period of 2005-2025. Since its establishment in 2006, Iskandar Malaysia has witnessed wide spread urban renewal and new urban/suburban projects which resulted in distinct physical and socio-economic changes. One of the challenges to urban consumption is the provision and allocation of amenities to people within the region. A main concern of this paper is to identify the impact of Iskandar Malaysia development on urban amenities distribution. The 2000 and 2010 census data will be explored using GIS to explain the spatial distribution of health, education and safety amenities. This information will be matched with the residential distribution to determine amenities' location, distribution and accessibility.

**Keywords:** Gentrification, Iskandar Malaysia, globalization, socioeconomic implication

# Planning Underground Public Space in Hanoi - the Difficulties and Challenges

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#### Abstract

While in the developed countries, underground public space has been built and efficient operated from the early but in Vietnam and other developing countries, the exploitation of underground public space is also more limited. Hanoi is the capital of Vietnam, where concentrated the administrative and political headquarters of the country. With over 1000 years of development, Hanoi preserved many of the historical, cultural heritage, attracting tourism, service, commerce and entertainment activities... With limited land to develop and expand, when in the downtown area the historical works are not easily to remove, renovate so Hanoi need to exploit underground space for city development. However, the underground planning of Hanoi faced with many difficulties and challenges. The paper presents the obstacle of Hanoi in particular, and the larg city in Vietnam in general when plan the underground public space. These are technical limitations to the survey, systematizing the current state of data, assess topography, geology, groundwater, is disjointed, inconsistent in managing projects underground ... lack of vision in the comprehensive plan of the whole city. Analysis and evaluation of these difficulties and challenges is the basis for proposing of planning underground public space in Hanoi

**Keywords:** Planning, underground public space, city development.

### The Importance of Information Sharing in Urban Planning: A Review Nordaliza Zulkifli<sup>1</sup>, Mohammad Tahir Sabit Mohammad<sup>2</sup> and Abd. Halim Hamzah<sup>2</sup>

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#### Abstract

The part of urban planning and management at local and state level is aetting to be more vital because of the growth in urban population and However, limited updated data and sharing related urban issues. information becomes one of the critical elements. The success of urban planning and development can be achieved with effective and efficient electronic land information system in an organization. The current electronic land information system is incapable of sharing land information. between multiple government agencies. The main problem is that the information is unavailable to the state and local planning authorities. The problem is also occurred to different districts, national levels, including sections of planning within a district and other government agencies that need land information for the urban development. Hence, this study attempts to review and discuss the needs of information sharina, which appropriate in the Malaysian land information system. The discussion is expected to highlight the main obstacles of information sharing practice and suggestions improvement framework in enabling information sharing for solving problems related to urban planning.

**Keywords:** Information System, Information Sharing, Land Information System, Urban Planning

# Monitoring The Effectiveness of Participatory Planning using Online in Kenjeran District, Surabaya

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#### Abstract

Musrembang is one of the instruments in Surabaya development planning process via website. Surabaya Online Musrembana involves the community in planning process by inviting communities to propose, discuss, decides and monitors development programs via website from city level up to the neighborhood level. The research aims to monitor the level of participation and the effectiveness of Online Musrenbang as tool in Surabaya development planning process. The use of website is expected to increase the degree of participation and its effectiveness in planning process. The research is using data from in depth interview of 12 stakeholders. The stakeholder consists of 5 governments, 5 communities and 2 privat sectors. The analyse methode is using content analysis. Content Analysis is used to investigate the content of interview transcripts. In other words, it's used to explore the content of interview transcripts in order to discover in which level of community participation and is it work effectively for online musrembang. Based on the research results, the level of community participation in Kenieran District is in placation level. In placation, the communities have large opportunity to propose and discuss the development programs. Meanwhile, small community involvements occurred in deciding and monitoring the programs. Furthermore, content analysis has shown that Online Musrenbana is still effective in increasina the community participation in Kenjeran District. Community has been one of the influential stakeholders for Surabaya development planning process. In addition, Surabaya has been successful in increasing community participation via online system.

**Keywords:** Participatory Planning, Community Participation, decision support system

# Privatisation of Electricity Service Delivery in Developing Nations: Issues and Challenges

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#### Abstract

The provision of public utilities and infrastructures particularly electricity by the public sector (Government) especially in the Developing Nations has been heavily criticized. This has been attributed to many reasons including - poor electricity supply, poor distribution of service delivery of electricity due to the absence of spatial planning, insufficient government investment into the power industry, ineptitude operation on the part of the technicians, poor administration and managerial control. However, efforts to move away from government ownership, control or participation in this sector of economy towards free enterprise and increased inclusive private sector participation known as privatisation, has been adopted as one of the solutions. This paper presents a critical review of privatisation practices of alternative Service Delivery approach of selected Asian and African nations. The paper would elicit the common variants of privatisation models adopted by these nations and the different implementation strategies which resulted in divergence in effectiveness and efficiency in the service delivery of electricity. The selected Asian countries are; Malavsia, India, and China, while the selected African nations are Nigeria, Cameroun and South Africa. The paper will draw from the literatures the various approaches, concepts adopted, practices, issues and challenges faced by these countries.

**Keywords:** Asian Nations, African Nations, Privatisation, Service delivery, utilities and Infrastructure.

### An Investigation on the Relationship between Land Use Composition and PM10 Pollution in Iskandar Malaysia

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#### Abstract

This paper discusses the relationship between land use composition and the degree of air pollution, specifically PM10, in Iskandar Malaysia. Aspires to be a low carbon region and a smart city, Iskandar Malaysia has to meet the social and economic needs of its growing population while taking care of all the environmental challenges that come with rapid urbanization. The occurrence of regional haze episodes in the past has shrouded this region with particulate matters including PM10, but the major cause of the haze was extensive agricultural open burning rather than land use change. Since there is no doubt land use change itself can be a significant contributor to local PM10 concentration, separating PM10 caused by the local (land use change) source from that of the regional source would enable us to investigate the trend in local PM10 pollution level. Therefore, a study on the Iskandar Malaysia's PM10 readings for the years 2002, 2006 and 2008 was carried out with the aim to identify the relationship between land use composition and PM10 concentration. The background concentration of the readings was extracted by using the base flow separation process commonly used in the hydrograph study. The extracted background concentration was then interpolated with the Terra MODIS level 2 product to identified the PM10 concentration for the whole Iskandar Malaysia region, spatially. Since data for land use changes are compositional data in nature, where the percentages of different land use coverages always add up to unity, the barycentric or ternary plot had been used to investigate the relationship between PM10 concentrations with the land use composition (urban:agriculture:forest) in Iskandar Malaysia. The results show that air quality as represented by PM10 concentrations are inevitably linked to the land use changes at the local level notwithstanding the more noticeable but intermittent influence of the regional haze episodes. The degree of air pollution is noticeably controlled by the percentage of urban land use with PM10 clearly affected by the size of commercial area.

**Keywords:** PM10, land use composition, remote sensing, Iskandar Malaysia

#### Agriculture Loss of Paddy Field in Response to Rapid Urbanization in Alor Setar

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#### Abstract

Rapid urbanization has caused many environmental impacts associated with the reduction of agricultural land. Urbanization transforms the vegetation pattern and ecosystem processes into development purposes and has changed the pattern of the city with a variety of physical development to meet increasing human needs. This process, with no sign of slowing down has been an important visible anthropogenic force that has brought significant changes in urban land cover and landscape pattern. This paper discusses how the urbanization affects the loss of agricultural land from the year 2005 until 2010 in Alor Setar. This research combines the uses of remote sensing based on land cover classification and landscape metrics. The land cover data were derived from SPOT 5 satellite imagery of 2005 and 2010. The spatio-temporal map were generated to identify the changes in land cover. The landscape metrics were analysed in term of configuration (class level) such as percentage of landscape (PLAND), number of patches (NP), and composition (landscape level) including Shahnon's evenness index (SHEI) and Shannon's diversity index (SHDI). Results revealed that the agriculture land become more fragmented due to the rapid growth of economic and population during the last five years. The changes of the land cover were interpreted using the spatial metric values. A conclusion is made in this study that the urbanisation process need to be monitored in order to reduce the loss of vegetation cover and making the right decision whether to approve a specific development in urban planning.

**Keywords:** Agricultural land loss, Remote sensing, Land Cover Change, Spatial metrics

# Demand Assessment Tool for Strategic Planning: A Decision Making Tool for Demand Prediction and Scenario based Strategic Planning through Consumer Data Analytics

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#### Abstract

Understanding Consumer Behavior is the most important feedback for any service provider, be it private businesses or cities themselves. Administration based on understanding consumer behavior always triumphs over a supply based strategy. Today cities in India has attained a distinct character which has been developed through change in citizen's lifestyle and aspirations. The city administration is hence, finding a difficulty, to match this pace resulting into deficit infrastructure supply and defaulting over managing and mitigating basic infrastructure services and resources. The future challenge lies in projecting the demand in the absence of knowledge of consumer behavior, which makes it difficult for investments to be made in the realm of public infrastructure provision. Above all it comes with a cost which the government has to inculcate added with the waste in natural resources, challenging physical as well as financial sustainability. This paper discusses a methodology to develop a framework for making an ICT based application tool that can help decision makers for predict Demand for required Infrastructure services, based on a massive Data available as well as collected through various departments as well as consumers themselves (Process of Data Mining). By adopting a step by step integration of data, gathered from consumer and data available with the Urban Local Body office, the tool incorporate various scenario based assumptions to understand and assess the change in demand for a particular resource or infrastructure service with a direct proportion to any development decision or Policy decision taken by City Administration. The paper hence, highlights the possibility of bridging the gap existing between research and application, by introducing an IT based tool developed based on the data analysis and User behavior, enabling the city administration take decisions for managing development, provision of optimum infrastructure as well as bringing the citizens and city administration on a single platform virtually. The paper presents a pilot research highlighting the issue by quantifying 'electricity consumption behavior' and develop an administrative tool for city administration.

**Keywords:** User Behavior, Demand Projection, Framework, Data Mining, Integration, Pilot survey Electricity Consumption Behavior, IT based Administrative Tool.

# The Influence of Green Open Space and Historical Area on the Urban Growth Using Simweight Method

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#### Abstract

One of the efforts to create a sustainable city is by balancing the built-up area with environmental conservation. The role of green space is very helpful in improving the environmental quality of the city. Preservation of historic buildings and the environment is also important in supporting the city of Banda Aceh, which has been designated by the government as a heritage city. The high growth in the post-tsunami feared to make the city become unsustainable. This study explored how the role of green space and historical area spatially encouraging the growth of the city. The data were processed by using the geographic information system (GIS), were then tested for distance relationship to green open space (GOS) and the distance to the historical area (HIA) using SimWeight. The results showed that distance to GOS and distance HIA influence on the growth of the city.

**Keywords:** Urban growth, spatial planning, GIS, SimWeight.

# Integration of Markov Chain Analysis and Similarity-Weighted Instance-Based Machine Learning Algorithm (SimWeight) to Simulate Urban Expansion

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#### Abstract

This study simulates urban expansion using Kaduna in North-West Nigeria as a case study. A hybrid model that integrates the Similarity-Weighted Instance-Based Machine Learning Algorithm for transition potential modeling and Markov chain analysis to quantify and allocate land use change was used to overcome the identified weaknesses of known modeling techniques like the Markov chain and standard logistic regression models. Environmental and urban physical variables that act as constraints and/or incentives to urban expansion were operationalized to create transition potentials for spatiotemporal states of built-up land use for the year 1990 and 2001. Model evaluation and validation was carried out using the area under the Receiver Operating Characteristic curve (AUC) and visual analysis by way of cross-comparison of the simulated and actual land cover maps. Having obtained satisfactory outcomes from the validation process, the calibrated hybrid approach was implemented to predict future urban expansion for forthcoming years. The simulated land use maps provide valuable insights into the location and type of urban expansion that is likely to occur in Kaduna in the foreseeable future. This provides city managers and planners much needed information that could inform urban policy aimed at better planning and management of urban development.

## Effective Space Maintenance Measures Using Vacant and Deserted Houses -Focused on Cheongju City-

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#### Abstract

This study intended to analyze current status of vacant and deserted houses and to suggest effective space measures using vacant and deserted houses of urban and rural region. To reach this goal, this study followed the three stages. First, we researched cases redesigning vacant and deserted houses and deducted implications. Second, we analyzed current status of the vacant and deserted houses, carried out the field study of the area clustered with vacnat and deserted houses and classified the type of them. Third, using previous results, we suggested effective space maintenance measures. As a result, we classified the vacant and deserted houses by space into 3 types: 1) urban residential area, 2) rural residential area, and 3) commercial area in Cheongiu City, and suggested 7 space maintenance measures: 1) the accommodation for traveler, 2) the cultural art residency, 3) the housing cooperative, 4) the rental house for college student and university graduate, 5) the rental house for lowincome group, 6) the house for urban to rural returner, and 7) the green and open space.

**Keywords:** Vacant House, Deserted House, Cheongju City, Urban Region, Urban Regeneration

### "6S" Principles for Super Smart City SU Yunsheng

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#### Abstract

In this paper, a new framework which integrates "design, construction and management mechanisms" in the whole process of urban planning is built under the guidance of City Moore's Law and the Space-Time-Energy Model. By comparing different mechanisms applied during fossil-era and pre-fossil-era, the truth can be discovered that patterns of energy using decide the productivity and superstructure. In line with this, the paper proposed a mechanism that regulate city transition through the combination of environment, city and human. Urban planning should manage Multi-scale Energy-Information cell, from personal space to city space, by City information model. What's more, based on the ownership in between personal space to city space, all these nested layers are all developed by mobile internet leading by "65" principles, which are Safety, Sustainable, Security, Smart, Share, Service.

**Keywords:** Super Smart City; City Moore's Law; Energy Cell; 6S" Principles;

#### Analysis of Shrines Properties using Remote Sensing Approach: Case Study of Lembah Bujang

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#### Abstract

Lembah Bujang heritage is important as a starting point to understand the origins and history of civilization in Malaysia. The study attempt to study the spectral reflectance of shrines properties in an identified area by using remote sensing techniques in conserving heritage site Lembah Bujang, Kedah, Malaysia. The remote sensing device (Spectroradiometer) was used to measure the spectral power distribution of source of shrines in the study area. This tool was applied for reflectance's test over properties such as clays, granite, literates and iron in a different two study areas consist of Lembah Bujang and Sungai Batu. Remote sensing test properties demonstrate that discrimination of properties types of each civilization is possible through reflection measurement, but that discrimination is complicated by surface conditions, such as weathering and lichen growth. Comparison between clays, against and iron show that clays to be more reflective than granite and iron. This result will help more in our further study on detecting these properties direct through remote sensing imagery and will be helpful in developing new indexes and selection of threshold value on shrines material in case study of Lembah Bujang. Simultaneously, a possible immensity of shrines area to be preserved from any future development expansion at once as a guidance to pursuing an area as official heritage site in beneficial a local authorities and decision makers.

**Keywords:** Shrines, Lembah Bujang, Remote Sensing, Spectroradiometers, Land Use Planning

# Towards a Resilient Development: Mitigating the Environmental Risk within the Community

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#### Abstract

This paper examines the application of a linguistically aggregation method, called parametrised Ordered Weighted Average (OWA), to evaluate the risk of flood hazard on environmental, social, and economic aspects of a flood prone area. OWA develops a series of multi-criteria combination rules that can improve the process of planning and decision making for a resilience development through scenario building. Based on this approach, an alpha (a) parameter is utilised as an instrument to guide multi-criteria process and lead the scenario development on a continuum between pessimistic to optimistic strategies. The parameter is integrated into a Fuzzy method to achieve the optimal order weights and generate a transformation function. In this research OWA method was operated in a Geographic Information Systems (GIS) environment to evaluate the spatial risk of flood as a devastating and most common natural hazard in Iskandar Malaysia, a rapid urbanising region in Southeast Asia. In addition, this research aims to initiate appropriate planning strategies towards a resilient and safe city. The complicated characteristic of study area as well as development plan for 2025 have been evaluated and examined by the means of OWA and using different evaluation criteria. As a result, the future development is assessed and areas in different level of risk based on various scenarios are highlighted. Finally, the suitable and rational strategies for current and future development have been suggested.

**Keywords:** Environmental planning, Order Weighted Average (OWA), Multicriteria evaluation, GIS, Iskandar Malaysia

# Development of a GIS-based Modeling System for Better Interchange Planning & Management in Expressways of Sri Lanka

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#### **Abstract**

In order to get the fullest benefits from costly invested expressways, interchanges have to be planned properly on behalf of two main reasons; firstly to maintain the less traffic congestion and secondly to use the land uses, around interchanges, towards the vast economic development (De Silva & Bandara, 2012). Therefore, it is obvious that better integration between transportation and land use is a must as far as interchanges are concerned. Although interchanges are a newly arrived infrastructure for Sri Lanka, nowadays, interchanges have arisen as a common integral part of both transportation and land use systems. Even though lessons and experiences from foreign countries show that vast unaccepted changes in land uses tend to occur around interchanges since the inception generating large amount of traffic, still relevant authorities in Sri Lanka have not shown a keen corporate involvement to manage the interchanges properly other than putting some rules and regulations individually. Therefore, need of a common platform to understand the complex interaction and work together is felt deeply at now. After carefully reviewing the related literatures, existing transport and land use models were investigated to lay the foundation to the proposed model in the means of input data, output data and modelling processes at next. Then, case studies were carried out to find the unique characteristics of transportation demand and land use changing at each interchange area in Sri Lanka. Finally, a GIS-based model was developed to facilitate the decision makings in relation to managing the traffic and land use in interchanges.

**Keywords:** Interchange planning and management, GIS, modeling, transport and land use, integration

# Pin It! Evaluating Public Official Acceptance towards Computer-based Spatial Information System

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#### **Abstract**

Information technology is developed to ensure simpler process in recording and retrieving data with which the data can be easily and accurately retrieved and displayed. Information technology, in its development, tend to be too costly and demand a complex initial setting that are difficult to attain by people living in the third world. Universities as the centers of innovation have the abilities to access the latest information technology to be adopted in subsequent innovative processes. These privilege access gained by the universities can subsequently be utilized for the benefits of the general communities by performing servicing activities as one of the Tri Dharma Perguruan Tinggi. And in this particular case, the service held by researcher was the diffusion of geographical information system technology for collecting spatial data of our collaborating Kelurahan, the lowest hierarchy in local government, in Surakarta City. The diffusion method was by providing tutorials based on a pre-structured information system. The tutorial participants from the collaborating Kelurahan were introduced to a simple application that can be easily learned and implemented. Three months after the tutorial had been completed, evaluation of its usefulness showed that the information system can be used to simplify the collaborators' activities. The evaluation was done through in-depth interview to the collaborating officials. However, none of the collaborator was interested in learning more about the information system technology as an innovative way for providing service to the community as well as to the local government as spatial data input for urban planning. This paper examines the obstacles that come from two sources, i.e. internal factors and environmental support factors.

**Keywords:** spatial information system, public official's acceptance, local governance, urban planning

### The Effects of R&D Activities on Product and Process Innovation in Korea Chanyong Kim<sup>1</sup>, Ye Seul Choi<sup>2</sup> and Up Lim<sup>3</sup>

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#### Abstract

This study empirically investigates the effects of R&D activities on the total technological innovative outputs, product innovative outputs, and process innovative outputs in manufacturing firms in Korea. By using the data from the 2005 Korean Innovation Survey by the Science and Technology Policy Institute of Korea, we analyze the links between R&D activities and the three types of innovative outputs. R&D activities consist of R&D investment, internal and collaborative R&D activities, patent activity, external technology and capital goods acquisitions, and the ratio of R&D personnel. The major finding is that patent activity and collaborative R&D activity have significant positive effects on both product and process innovation. However, R&D investment and internal R&D activity only have significantly positive effect on product innovation, while external technology and capital goods acquisitions have significant effect on process innovation. In addition, the result from all types of innovative outputs support a positive link between firm size and innovation, but increase at a decreasing rate. These results shed some light on the mechanism that identifies effects on product and process innovation at a firm level. Our findings also suggest that manufacturing firms in Korea can advance innovative performance by conducting aforementioned R&D activities. Based on analytical results, some policy implications will be discussed.

**Keywords:** Product innovation, process innovation, R&D activities

# Research For Comprehensive And Active Planning Method In The Industrial-Residential Mixed Area-Focused On Ota Creative Town Vision In Ota Ward, Tokyo-

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#### Abstract

Recently in Japan, urban environment in the industrial cities has been changing due to industrial, economical, and social structure. Ota Ward in Tokyo has small industrial districts, and some are mix-used areas. In 1980's, there were 9,000 factories, but currently, the number has been decreasing. Although they still possess sophisticated skill, their working environment is not good enough because of being surrounded by many dwellings. In addition, it is too difficult to pass their technical knowledge to the next generation. In this research, we are focusing on a comprehensive and active planning method, particularly, how to integrate manufacturing, community development, and city promotion to solve this kind of problem in residential-industrial mixture city. Firstly, we made a consideration to local resources, a small industrial network, mixed-used situation in Ota Ward and access to international airport. Secondly, we created a vision with following three viewpoints; (1) Stock (property) management, (2) Making Creative Industry, (3) City promotion with Industrial Tourism, At the moment we try to the following two project. One is the industrial tourism event,"Ota Open Factory", it is one day program opening many small factories at the same time in the mixed-used industrial area, where we usually cannot enter. The other is "Creative Town Lab. Tamaaawa", which was converted from a vacant factory to an active community space for factory town (education, workshop, meeting, exhibition, events). Through these projects, we are trying to integrate the area's potential and activities, to create city identity and to make them creative and active.

**Keywords:** Industrial area, Stock Management, Creative Industry, City Promotion, Comprehensive Planning

# Characteristics of Open Factory in Terms of Local Revitalisation Scheme -A case Study on Ota Ward, Tokyo

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#### **Abstract**

Recently, in Japan industrial quarters have paid attentions to tourism as one of the revitalisation methods. To date, we have been focusing on a comprehensive approach from the perspective of industrial promotion, community planning and tourism management as well, and conducting an action research in Ota Ward, Tokyo, which still has the largest number of factories in Tokyo. On the basis of this concept we two Universities collaborated with the local tourist association and specifically proposed an open factory, where multiple factories normally visitors do not have any opportunities to access are open to the general public simultaneously in a specific area and at the same time several programmes like a walking tour, talk-show by skilled workers and new product development for consumers are provided. Thus, this research aims at revealing characteristics of an open factory in terms of local revitalization scheme. Through several investigations regarding what Ota Open Factory have achieved over the last five years, we could finally indicate five major characteristics of an open factory as follows; 1) addressing a crosssectional approach, 2) promoting to walk around the area, 3) connecting a variety of local resources, 4) visualising or recreating collaboration on production and 5) conducting a social experiment.

**Keywords**: Industrial quarter, Tourism, Open factory, Local revitalisation, Ota Ward

#### FACTOR ANALYSIS OF MOTORCYCLE CRASHES IN MALAYSIA

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#### Abstract

This research paper focused on factor analysis of motorcycle crashes in Malaysia. Statistics have shown that Malaysia has the highest road fatality risk (per 100,000 populations) among the ASEAN countries and more than 50% of the road accident fatalities involve motorcyclists. The research literature has shown that key factors that significantly involve in the motorcycles crashes are human factors, road and vehicle conditions and environment factors. The purpose of this research is to analyse the driving attitude, behaviour and habits of Malaysian motorcyclists especially the voung students. For this purpose, a research survey (N=210) has been conducted in University Technology Malaysia (UTM) in order to perceive road user perception on key factors that contribute to motorcycle crashes in Malaysia among the young students. The results show that the highest factor that contributes to the motorcycle crashes in Malaysia is the human behavior factor, follow by road and vehicle and lastly the environment factor. Human attitude on the road is the main factor that causes a motorcycle crash. Impatience, careless, selfish and dangerous driving make driver involve an accident. Evidence recommendations are suggested to reduce the number motorcycle crash in Malaysia. Implementation of these recommendations can be helpful to reduce the number of accidents and changing the attitude of young driver.

**Keywords:** Motorcycle Crashes, Malaysia, Human Factors, Road Factor, Environment Factors, Social Factors, Vehicle Factors

#### TRACK 4: SOUL-SEARCHING PLANNING EDUCATION (PE)

# Appropriate Pedagogical Approaches For Conduct of Site Planning and Built Environment Studio in Spatial Planning Education Programs Valliappan Alagappan<sup>1</sup>

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#### Abstract

Spatial planning education is multi-disciplinary in nature and particularly site planning needs exposure to Engineering, Architectural, Landscape, Sociological, Economic, and Infrastructural aspects. The curriculum of the spatial planning program introduces the site-planning studio (multi-level design and planning) at the initial semesters without introduction of single space design and planning. Due to inadequate exposure the students find it difficult to plan and design residential layouts in the planning studio. The site-planning studio provides a good understanding of how the articulation of density can modify the built form and environment. There are considerable lacunae in the adopted approaches of site planning studios in various planning schools. The author discusses in detail the varied approaches and methodologies adopted in site planning and built environment studio programs. The two approaches discussed at length are Block based approach and Design based approach. The characteristic features, outcomes, advantages and disadvantages of each approach, offer an understanding of how site-planning studios have to be taught in the planning program. The author emphasizes the importance of a gradual progression from a single space design and planning to multi-level design and planning for enhanced comprehension of students.

**Keywords:** Site Planning, Space, Design, Housing, Density

# A practical approach to landscape architecture program in Vietnam - towards a reality urban planning

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#### Abstract

In the process of development and international integration, the question of training associated with the practice has always been a challenge for all universities. Among the training, which requires a practical environment, the architectural formation in Vietnam is also in the process of transforming itself to adapt to the reality needs and international integration. The Hanoi Architectural University has been a pioneer in developing an international training program of landscape architect, in cooperation with four national schools of architecture in France. The formation proposes to understand the complex relationship between space and time, the process and mutations of space at different scales and human influence on the transformation of the community. This training of landscape architect prepares professionals for the qualitative urban and rural planning. Indeed, the teaching is nourished by a system of projects and workshop on site, which is the closest form of future professional works. Besides the advantages of an exchange program of training, the teaching and performing of landscape architectural projects method which has been established from the experience of France and adapted to conditions of Vietnam can be considered as an invent in the training process. In this paper, as a founding member and the superviser during implementation of the training program, we wish to introduce the advantages of the method in this new specialized training as well as pointing out the difficulties in the training process towards a reality urban planning.

**Keywords:** Landscape architect, Vietnam, urban formation, bridging, research, reality urban planning

# A New Challenge of "International Program in Architecture and Urban Design" at Meiji University, Japan

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#### Abstract

The more we have globally common issues in environmental field and Socio-Cultural field in the cities, and the smaller the world becomes with advanced technology and transportation progress, the more we need skillful planners and designers who can solve these issues globally and professionally. In order to respond to these strong needs in Japan and especially in ASEAN countries, we launched a new "International Program in Architecture and Urban Design (I-AUD) " in April 2013 in a new campus at Nakano area, downtown Tokyo, and the first graduate students were newly born this March. The 2 year graduate program is operated as an English track program, and 4 instructors of Masami Kobayashi, Hiroyuki Sasaki, Manuel Tardits, and Yasutaka Yoshimura are in charge of teaching and managing the program. The number of the first graduated students were 16, including 2 Thai students, and they also worked together with 4 American students (University of Oregon) and 2 French students (ENSAPLV). They visited Hong Kong (HKU), Bangkok (Chulalongkorn U), San Francisco and Los Angeles (USC) and also invited UTM Students to Tokyo to do the international workshops together. With the aid of these abundant workshop experiences, the students improved their communication and design skills amazingly, and some of them worked as interns in foreign design firms for several months.

In 2013, Meiji University opened a satellite campus of "ASEAN Center" at Bangkok and we held several International Design workshops with Chulalongkorn University, and Singapore National University. In the international workshops or design studios, the students basically have to work in groups and the mixture of different cultural background sometimes causes conflicts, but finally they could get synergy effects and chemical reactions. In the earlier period, Asian students are generally shy and set back from the main stream of the group works, but gradually they can get accustomed, and in the later period they can get initiatives in the group management. Moreover, the students become more conscious about the local identity and a global commonality in each city, and start to think how to coordinate or mitigate them to solve the current issues in the city. To bring students to different educational environment and let them work together is a quite effective method to make them matured and they actually start to open their eyes to the global serious issues in front of them. Generally, it is difficult to measure the effect of the international workshop and studios, but through the inquiries to the students and teachers, we could grasp the outline of the effect evaluation and see what should be improved still more.

**Keywords:** International Education, English track program, common global issues, ASEAN

#### Islamisation of Town Planning Education: A Review on the Courses Offered by the Department of Urban and Regional Planning, International Islamic University Malaysia

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#### Abstract

Islamisation of human knowledge has become a critical agenda nowadays. One of the factors that contribute to this agenda is the loss of the Islamic basis to knowledge construction whilst secular-based conventional knowledge has become more domineering thus affecting our education system. Secular-conventional knowledge is based more on rationality, custom and judicial precedence but to a lesser extent on morality and religion. The latter two however have acquired greater prominence in Islamic knowledge; sourcing from al-Quran and al-Sunnah. Knowledge in Islam is categorized into revealed and acquired knowledge. They are governed by certain epistemological and methodological approach; incumbent with the philosophy of acquiring knowledge in Islam that is a way to know Allah. Being one of the branches of knowledge, town planning discipline in the built environment education is selected for the purpose of this paper. This paper reports a desk study on the Islamic input already embedded in the course contents offered by the Department of Urban and Regional Planning, Kulliyyah of Architecture and Environmental Design, International Islamic University Malaysia (IIUM). Out of 140 credit hours of town planning core courses and University required courses, it was found that 48 credit hours (34%) have embodied Islamicrelated topics in the course content whilst the remaining 66% were silent. For further knowledge enhancement, this paper proposes compatible Islamic inputs to strenathen the existing curricula and new Islamic inputs for the silent ones. This can be delivered through team-teaching between lecturers from the town planning kullivyah and their counterpart in the Islamic studies kulliyyah. This strategy hopefully will pave the way for effective application of Islamic principles in the contemporary town planning subjects and at the same time hasten the pursuit of the Islamisation of the town planning education in Malaysia.

**Keywords:** Islamisation, human knowledge, built environment, methodology, education

#### Exploring Multi-disciplinary Approach in Urban Planning: Need for a Paradigm Shift in Planning Education in India

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#### Abstract

Large urban centers are fast becoming multi-ethnic and multi-linguistic zones of settlement assimilating a cosmopolitan character due to inherent impact of globalisation. Urban settlements also act as a service centre for large scale human activities catering to needs of their hinterlands. Hence, the issues pertaining to urban settlement are diverse that demand a holistic and pluralistic approach to deal with. To understand the diverse issues of modern cities especially in the developing world, there is a need for a multi-disciplinary approach and perspective to widen the subject horizon of planning education. This study hence, tries to assess to what extent the alobal and national urban agenda are incorporated into the course curriculum of planning education in India. Secondly, while global planning education focus on multi-disciplinary skill development to deal with the alobal urban agenda, does Indian planning education provide adequate attention to the contemporary urban agenda? Thirdly, it also examines whether or not the existing curricula and pedagogies are relevant to the present days needs of the planning profession. Historically the planning education in India started with colonial influence of regulatory provisioning of civic administration under the town and country planning framework; however, there has been a major diversification in specialisation within planning courses incorporating the multiple-dimensions of urbanisation. While there exists a model curriculum, public funded schools of planning have been innovative in addressing the contemporary needs of planning education tools compared to those run by private institutions. It is observed that the outreach of planning education is low in India given the vastness and requirements of planning professionals in the country under rapid and higher economic growth and urbanisation.

**Keywords:** Planning Education in India, Urban Planning, Multi-disciplinary approaches, Urban agenda;

# Design Theory and Strategy for Re-Editing Fragmented Cities Sustainable Design Camp and International Architectural & Urban Design Workshop Koichiro Aitani<sup>1</sup>, Takeru Sakai<sup>2</sup>, and Masami Kobayashi<sup>3</sup>

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#### Abstract

This paper discussed about a program which developed a practical method for fostering experts in relation to Sustainable Architecture and Urban Systems, which is called the Sustainable Design Camp, formerly known as the "Research Camp". This intensive design charrette has been executed with collaboration between Asian universities developing both internationally and inter-disciplinary interaction. The Department of Urban Design, Planning and Disaster Management and the Department of Architecture in the Graduate School of Human-Environment Studies, Kyushu University were selected to be eligible for the Support Program to Improve Graduate School Education (Graduate School GP: Good Practice) in October 2008. "Habitat Engineering as an Approach to Realize Sustainable Asian Cities" aims to develop researchers who pursue methods and technologies to achieve a sustainable society through constructing sustainable cities and architecture in Asia. Planning and design graduate students majoring in architecture, urban studies, environment, and structural engineering from several international universities jointly participate in this camp. Participants are broken up into multidisciplinary and international teams for a short term intensive workshop (approx. 10 days). In 2011, the "Sustainable Design Camp" was combined with the "Exercise: East Asia Project Study." Field study, extraction and analysis of regional problems, assessment of alternative idea CASBEE (Comprehensive Assessment System for Built Environment Efficiency), and SWOT analysis are used to develop a schematic design under the themes of slums, lowering carbon emissions, and preservation of marshlands, etc. Major partner universities (from the host cities) have included Tongii University(Shanghai, China), Gadjah Mada University (Yogyakarta, Indonesia), The University of Hong Kong (Hong Kong, China), University of Moratuwa (Colombo, Sri Lanka), Pusan National University (Pusan, Korea), Van Lang University, Ho Chi Minh City University of Technology, The University of Architecture of Ho Chi Minh City (Ho Chi Min City, Vietnam), The Institute of Engineering, Tribhuvan University (Kathmandu, Nepal), and Bangladesh University of Engineering and Technology (Dhaka, Bangladesh).

**Keywords:** Charrette Workshop, Collaboration, Sustainable Design, Asian Cities, Urban Regeneration

# The Meaning of technopole in development of innovation and regional in Indonesia

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#### **Abstract**

Technopole has become a term that widely cited when talking about innovation and technology. The shifting of world economy concept from traditional based economy to knowledge based economy making the region with function as a seedbed of innovation becomes popular to be implemented. Moreover with the success of silicon valley in developing innovation. The main concept in development of technopole is the synergy between actors and networks in nearby locations.

In Indonesia on the periode of 2000s has grown several technopoles which are solo technopark and ganesa sukowati technopark. These technoparks have different developments with general development of technopole. While technopole generally grow its innovation by facilitating network between research and invention from university to be produced in manufacturing industry. Solo and Ganesa sukowati technopark are not place for innovation seedbeds but place for training facility. Therefore, are solo technopark and genesa sukowati technopark can be called as technopark that have same meaning with the other technopole in the world?

**Keyword:** technopole, Evolution, innovation

## Ethical Dilemmas in Planning Practice and Role Of Planning Education in India

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#### Abstract

Curriculum in higher education usually shy away from explicitly talking about values. Planning education is not greatly different from this except that for planning to be recognized as a profession it is required to adopt a 'code of conduct'. In the profession of planning, a highly political activity, decisions invariably entail ethical decisions. However, there is very little discussion on the everyday planning practice in general and ethical issues in planning practice in particular in the planning literature in India. The sensitization of students towards ethical dilemmas has become more critical as increasing urbanization and large agglomerations require more complex decision making for development. With many actors intervening in planning decisions, planning practice today, faces many pressures particularly in the context of privatization and real estate interests influencing decisions related with land use, development controls etc. This paper, in the first two sections provides the changing nature of decisionmaking in planning practice in India and its ethical dimensions, with particular examples from its capital Delhi. Third section reviews selected planning curricula in India at undergraduate level to determine how these respond to the question of values in planning practice. Many of the curricula, invariably include a course on professional practice with a module on code of conduct. In case of India, such a code of conduct has negligible enforceability. Moreover, discussion on ethics is not easy because it can easily degenerate into a cliché' on one hand and is extremely challenging to incorporate into every day life on the other. This is particularly true when the social context in which the planning education and profession is situated places insignificant importance to the question of values. This paper concludes that for planning to gain more legitimacy as a profession in the present context, planning education needs to give greater importance to the question of ethics in planning in India.

**Keywords:** Planning Practice, Ethics, Delhi, India, Planning Education

# Interdisciplinary and international collaborative learning program development on the tourism development and community planning in Asia region

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#### Abstract

This study reports a learning program development process and educational effects of an international and interdisciplinary collaboration by analyzing the students' outcome. The program has been carried out between two universities, one is the hotel school in Hong Kong and the other is the architecture school in Taiwan. The program period was four months, from January to April 2015. The targeted site located in Southwest of Taiwan, it places near a country park and facing to the Pacific Ocean, and has been planning to be developed as for both tourist spot and local recreational area. First of all, both students visited the site together. Second of all, hotel school students were divided into groups randomly and made development plans with consultation from architecture students. The hotel school students worked in their group during the whole period however they could have consultations from different architecture students. At the end, eight different plans were come out from students. Recently, importance of the collaboration within the Asia has become increasingly, and at the same time competition in that area has also become much more highly competitive. Further development of this interdisciplinary and international collaborative learning distinctive program between planning and other students stimulate both urban planning and regional tourism development in Asia. This pilot program has intention to be expanded to the different countries and extended to Charrette-workshops, summer schools, and the international competition of student's business planning and design award.

**Keywords:** Hospitality facilities design, Area development, Design thinking, Interdisciplinary learning program, International collaboration

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# Planning Education in Malaysia: Meeting Local Needs and Global Challenges

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#### Abstract

In a fast tracking world, it is paramount that the competency deficiencies between education and practice be as insignificant as possible. However, in the field of urban planning it has been claimed that the competency deficiencies between urban planning education and practice has become a matter of concerned. The inability of the public sector to absorb urban planning graduates resulted in them being driven to the private sector for employment. Of late planning practitioners have the perception that urban planning graduates are deficient in meeting the requirements of practice. With restricted resource, time and stiff competition the private sector demand work-ready graduates, which lead to the perceived deficiency of the new graduates. Urban planning education in Malaysia has come a long way since its inception in 1972 and over four decades, it has evolved in an attempt to accommodate the changing planning philosophy and the requirements of practice. This paper addresses the industry's concerns regarding current urban planning graduates in relation to meeting the local needs and global challenges. The paper ends with the discussion on the Department's effort to overcome or minimise the deficiencies between planning education and plannina practice.

**Keywords:** Urban and regional planning, planning education, planning practice, employment prospect, competency deficiency

#### TRACK 5: GREEN GROWTH – THE NEW PROSPERITY (GG)

### Mangroves Degradation: A Local Perspective on Its Awareness Mazni Adibah Abd Rahman¹and M.Zainora Asmawi²

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#### Abstract

Mangroves in Malaysia reside on the coastlines, and the largest areas of mangrove are in the Northern Sabah. Over the past decades, mangrove species have been reported to be disappearing from the globe. It is due to several natural processes that have been inserted to fill the needs of the increased population. These include illegal logging, agriculture activities and urbanisation. In this regards, awareness of the local residents about the problem of manarove depletion is important to inhibit the problem to prolong further. Therefore, this research was conducted to determine the degree of awareness of local residents on the importance of mangroves in managing environmental quality. Consequently, a questionnaire survey was conducted on 103 respondents to examine their awareness on the subject of mangrove degradation. The respondents were selected randomly among local residents of Kuala Selangor district. It is found that only twenty percent of the total number of respondents are totally aware of the issue and acted upon it; either taking part in the endeavours made by the government as well as those with the non-governmental bodies or practicing mangroves replanting at their backyard.

**Keywords:** Mangroves; Local Residents; Degradation; Awareness

The Effect of Regional Assets on Place Attachment

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#### Abstract

With a paradiam shift in urban regeneration, the importance of various asset utilization and community involvement in the urban regeneration process has often been highlighted. The importance of analyzing the various regional assets as well as taking the region's history, culture, traditional asset and human network into consideration in carrying out urban renewal projects are widely being accepted in Korea; similar emphases have also been placed in the United States and the EU. The regional assets indicate assets serving all meaningful purposes and can be classified into natural environment assets, built environment assets, economic assets, human-communal assets and cultural assets. Moreover, the regional attachment indicates the positive attention towards the regional community and represents the community's willingness towards community involvement. The purpose of this study is to provide theoretical input and suggest strategies for asset utilization and community involvement for sustainable urban regeneration by analyzing the relationship between regional assets and regional attachment and the moderation effects relating to residing period. The study covers the city of Cheonan, and a survey regarding the recognition of regional assets was conducted with 76 residents of the city of Cheonan. Based on the survey data. a stepwise multiple regression analysis was carried out in order to determine which of the five types of assets impact regional attachment. Furthermore, to determine whether there is a moderation effect caused by the residing period on the relationship between regional assets and regional attachment, a stepwise regression analysis was carried out. The testing of the first hypothesis yielded that only human and human communal assets affect regional attachment. The second hypothesis testing yielded that the residing period does not have moderation effects on regions, on a city level. In conclusion, the strategies for sustainable urban regeneration focusing on community involvement and regional assets are as follows. First, asset development and utilization should focus on the human and human-communal assets. Second, the residing period of the participants do not need to be considered in case of cities.

**Keywords:** Sustainable Urban Regeneration, Regional Asset, Place Attachment, Community, Length of Residence

# Land Cover Change and the Bio-capacity of $\text{CO}_2$ Gas Emission Absorption in Gresik Urban Area

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#### Abstract

Gresik urban area is dominated by industrial, housing, trade and services activities. The growth of activities contributes to the land use change from green open spaces into built-up areas. The impact of land use change influence the level of air pollution and CO2 gas emission in Gresik urban area. The previous study briefly shows that this urban area produces 50.37% of the total CO2 gas emissions. The production of CO2 gas emissions should be controlled to reduce the impact of climate change in urban areas such as increasing urban temperature, hydrological cycle anomaly, drought, land degradation and other social and environmental issues. The green open space can recycle the CO2 gas emissions and can increase the absorption capacity of the CO2 gas emissions (bio-capacity). The land cover change for built-up area potentially reduces the absorption of CO2 gas emissions in Gresik urban area. Therefore the identification of the land cover change on absorption of CO2 emissions is an objective of this study. The preliminary study can formulate the strategic steps in the development of Gresik urban area that supports urban greenery and adaptive effort to respond the climate change. The study is conducted in two steps. The first step is to analysis the land cover change based on the Landsat satellite imagery analysis. The second step is to measure the dynamic change of the region's ability (bio-capacity) to absorb CO2 emissions by using ecological footprint analysis. From the results analysis show that Gresik urban area has a high development of developed land to the North area, Manyar Sub District. The growth of the developed land is more converting the fishpond land. The green areas in this region tend to be influenced by farming activities which also convert into fishpond land. Bio-capacity of CO2 gas emission absorption increases from 2003 of 3.548 gha to 5.656 gha but the comparison between bio-capacity of CO<sub>2</sub> gas emission absorption and developed land shows the declining tendency in each year. In 2003, the comparison score is 1.59 gha/ha of developed land. In 2014, the score is declining into 1.48 gha/ha or developed land.

**Keywords:** CO2 Emission, Land Cover Change, Bio-capacity, Ecological Footprint.

#### Green open space Provision Evaluation in Gresik Urban Areas Through Carbon Footprint Approach

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#### Abstract

Gresik urban area moves into an area that is growing rapidly as the main line of economic activity and services. These developments have consequences more awakened space requirements that can potentially lead to conflicts over land use, environmental damage thereby could reduce the carrying capacity of the environment. One indication of the declining carrying capacity is global warming phenomenon in which the production of CO<sup>2</sup> emissions increases beyond the ability of Green open space to absorb. In the period of 2011-2012 in Gresik urban areas has decreased extensive green greas such as paddy fields, ponds and dry land of 1106.73 ha. Based on previous studies, Gresik urban areas have experienced ecological deficit on aspects of carbon sequestration between 0.25 to 0.36 gha. On the other hand activities which occupied Green open spaces in urban areas Gresik dominated by vacant land and shrubs which at any times can be converted into smaller plots. Green open space in the region are occupied 18.3% of total land use which supposed to be 30% of total land use. The lack of green space availability conditions will impact on the people quality of life in the city due to the declining of environment carrying capacity which is resulting potential respiratory health problems due to high air pollutants, as well as the potential for flooding due to reduced absorption area/rainwater catchment area. Therefore, it is crucial to give an evaluation regarding how the provision of Green open spaces in Gresik urban areas as an effort to create a balanced utilization of space between land use for economic and environmental activities. Thus, in these research some research phases are needed. The first phase will be carried out analysis of CO<sup>2</sup> emissions (carbon footprint) production in Gresik urban areas from several activities such as housing, transportation and industry which is as dominant activity in this urban area. The second stage is CO<sup>2</sup> emissions absorption analysis by Green open spaces in Gresik urban areas based on existing condition. The result of this paper could be a good input for continued research to calculate adequate Green open space for Gresik Urban area and at once give the recommendation where the green opens space should be plotted. Thus, the provision of Green open spaces in urban areas Gresik could create balanced space utilization between land use for economic and environmental activities.

**Keywords:** CO2 Emissions, Carbon Footprint, and Green open space.

## Ecological and Sustainable Growth with Augmented Urban Planning and Designing

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#### Abstract

Urbanization is inseparable part of human history. It is for many a necessary evil driven by economic and demographic progression. It is increasing with unprecedented pace since last century. The city development patterns have increasingly become inefficient and unsustainable. In Asia, the level of urbanization is forecasted to increase from 45% in 2011 to 64.4% in 2050, when about 1.4 billion more people will be living in cities. The choices made by Asian agreements as they seek to manage this rapid urbanisation will have large and lasting consequences for the environment and human well-being (UN DESA (2012a), World Urbanisation Prospects, the 2011 Revision, NewYork). Cities around the world especially, of the Asian continent have to counter years of inefficient, sprawling development, environmental ramifications and fractured social fabric. As a result issues engulfing the cities in developing countries especially India are very specific yet very different from region to region. The phenomena of alobalization have set the Indian society in a state of flux, which needs more stable and rooted urban planning and design. This study is pertaining to the Indian cities vis- a- vis present scenario and evolving a strategy for city planning with regional planning, community participation and communication with stake holders along with due regard to the environment. Evolving an urban design proposal to be very much in sync with environment with case study and focus on salvaging some of the environmental ramifications with support of more proficient and selfsufficient communities. A conceptual proposal for Indian cities with less than 5million population evolved to find a fresh multipronaed approach to synergize urban sustainability and green growth.

**Keywords:** Urban and neighbourhood planning, Sustainability, Regional planning, community participation, urban ecology

## Effect of Kenaf Clay Composition on Workability of Kenaf Clay Roof Tile Mixture

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#### **Abstract**

Kenaf fiber has been used in various building products because of its properties that are strong, durable, light in weight and cheap to produce. The potential of kenaf fiber to replace composite timber flooring, composite wall and composite ceiling material has bring interest to explore in other building parts such as roof material. Current roof materials such as clay, terracotta, slate and concrete roof tile are heavy and expensive because of their durability and aesthetic value. Therefore, a study on the effect of kenaf fiber composition on the workability of clay and kenaf mixture is required to determine the right composition and hence become new formulation for the mixture. In order to determine the workability of kenaf clay composition, drop cone penetrometer test was conducted. Different size of particles and bonding effect will determine the depth of cone penetrating through the mixture. The sizes of components used were sieved and graded as clay, fine sand (<1.0mm), medium sand (2.00-3.35mm) and silica sand (<0.5mm). The main component is the clay thus the study on formula started by measuring the clay and water mixture into the cone until the amount was enough to run the test. The amount of clay was then reduced to substitute with different types of additive components consisted of cement, silica sand, fine and medium sand. Each mixture of clay and additives were added with 0.5g of kenaf fiber starting from 0g until 5g was reached. When kenaf fiber was added and well mixed, the mixture was put into the cone to be tested. The procedure was repeated for each of the different formulas. Drop cone penetration test of clay, fine sand, medium sand and cement composition showed the best reading since the more amount of kenaf fiber added into the mixture, the smaller reading of the depth achieved. Thus, this study on effect of kenaf clay composition on workability of kenaf clay roof tile mixture shows the best composition will suitable to be used as roof tile material.

**Keywords:** Kenaf fiber, composite material, workability, drop cone penetrometer.

## The Rukun Warga-based 3Rs and Waste Bank as Sustainable Solid Waste Management Strategy

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#### Abstract

Waste management is one of the most challenging issues in many cities in developing countries. One of the primary failure factors of solid waste management in developing countries is the inadequate financial capability and manpower capacities while having less creativity and innovations to compensate the deficiency. Communities store a potential power to support overall performance of urban solid waste management through various creative and innovative arrangements. In Indonesia, the Rukun Warga (RW) is the lowest hierarchy of community organizational system. Many creative and innovative arrangements to support solid waste management activities can be done through RW, with less financial requirement necessary to initiate the process. We conducted this study by observing the RW-based activity on 3Rs particularly waste separation at household level, waste recycling business and waste bank system undertaken by the community and its influence to perceived cleanliness in the locality and income-earning activity. We observed fifty RWs and generated the perceptions of 412 respondents of the RW community. Our analysis shows that the correlation between level of the activity of the RWs communities in undertaking 3Rs, recycling business and waste bank, and the perceived cleanliness by the community members was validated. It is also showed positive results such as improved urban environment and provided strong push-factor influencing the community members to join the movement. We also confirmed that activities towards sustainable solid waste management are not always cost-intensive activities; a sociallybounded engagement would also workable. The study is significant for the waste management authorities to replicate and up-scale the RW-based waste management activities towards overall waste reduction in the city aimed at sustainable solid waste management. We averred that a livable city will not be accomplished without sustainable solid waste management. We also argued that improper solid waste management will only add to the complexity of the urban problems.

**Keywords:** Rukun Warga (RW), 3Rs, community-based solid waste management, waste separation, waste bank, cost-intensive waste management

# Applying the Urban Resilience Theory to Flooding on flood-prone settlements along the Pampanga River

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#### Abstract

By accepting periodic flood as an unavoidable circumstance, urban communities in eastern Pampanga can adapt to flood flows from the Pampanaa River better during high-intensity storms by creating a more ecologically-resilient multi-equilibria system of adaptation. A typical solution is to apply engineering solutions to flooding, resulting in a forced state of equilibrium that is ill-adapted to the changing forces of nature. By understanding the dichotomous theory of urban resilience to floods, strategies can be formed to assess and plan a more adaptive flood hazard management framework. To operationalize the theory, an estimation of stormwater and riparian alluvial flow is developed to understand the volumetric capacity of floodwaters natural floodplains need to accommodate flooding. The rational method of computing runoff is applied to the major watershed forming the flood-prone Pampanga River, determining the percentage of floodable area and moving ecological equilibria. This creates a better understanding of the distribution of flood by providing a baseline for the future planning of mitigation and adaptation urban strategies to flooding such as providing vegetated buffer zones, no build zones, and ground to building floor height.

**Keywords:** Flood resilience, urban planning, spatial planning, GIS

# Greenway-oriented Strategy of Urban Renovation: A Case of Waterfront in Guang'an Downtown

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#### Abstract

So far cities in developed countries have nearly entered stably developing phase with their urbanization ratio exceeding 80%, while most of Chinese cities are instable with the speed increase both in population size and land scale and widely facing challenges of eco-environment protection and industry transformation which resulting in urban renovation. Guang'an, a eco-city in eastern Sichuan, is a typical illustration. With urban land expanding, Qu River became the geometric center of Guang'an from edge, which leaded to renovation Waterfront in Guana'an Downtown. How can we transform the waterfront from a industrial site to a ecological landscape zone which can boost growth of city containing all the functions of travelling, shopping, entertaining, meeting and showing? To answer this question, the paper mainly uses methods of transplanting, case analysis and AHP(Analytic Hierarchy Process), etc. In the first, we introduced the greenway theory based on in-depth analysis on status quo of project, and proposed five functions of greenway design in the renovation. Then, the basic principle of greenway-oriented strategy was raised in an ecological perspective to solve problems of functional transformation and eco-environment building in the project. And third, and most important, three greenway-oriented strategies used in this project were elaborated, including building greenway network structure based on the existing natural and cultural resources, building identifiable landscape nodes using existing industrial sites, and improving land-use and spatial form of the waterfront. The greenway network construction is more primary than the other two strategies. Furthermore, the paper presented five approaches to achieve objective of building greenway network: building Qu River as core of greenway system, openning green corridors between river and mountains, daily leisure greenway to enhance accessibility of river, pedestrian system to integrating natural and cutural landscape, and superimposing various types of greenway to form greenway network. Through a series of greenway-oriented strategies of urban renovation, the waterfront of Guang'an downtown is successfully transformed to core of the whole greenway network in the city and will provide powerful drivers which is critical to ecological and landscape construction in Guang'an.

**Keywords:** Greenway, urban renovation, ecological and landscape construction, functional transformation, Urban Design of Waterfront in Guang'an Downtown

### Examining The Cooling Effect Of Green Parking On Street Jong-Hwa Park<sup>1</sup>, Gi-Hyoug Cho<sup>2</sup>

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#### Abstract

This study starts from a hypothesis that increased green surface in residential street as a results of the green parking policy may reduce UHI(Urban Heat Island) effect on the street. We analytically classified the physical characteristics of streets and examined the cooling effect of green parking on the street. The basic research design follows the principles of a comparison study. The focused study area are two streets in neighboring residential block; one is a conventional residential street and the other is a street redesigned by green parking system. Physical features of each street were classified into five elements; walls material (brick, paint), fenestra, ground pavement (neo-stone block, asphalt), vegetation, and other objects on streets (vehicle, streetlight). The temperature data on 12:00PM, 1:00PM and 2:00PM were collected with a thermal infrared camera (FRIR T440) at 3 spots in each street and were analyzed using ArcGIS 10.2.1. The results of t-test and temperature distribution showed that the cooling effects of green parking was mainly generated by three reasons. First, the surface temperature of green parking areas is lower than that of conventional street. Second, the area proportion of each physical element is different, and street of green parking have higher proportion of low temperature elements. Third, in street of green parking, the vegetated areas tend to deeply penetrate the residential blocks while the vegetated areas in conventional streets are limited to the walls. Overall, the findings consistently indicate that green parking system on residential street is very effective to reduce temperature on street and UHI.

**Keyword:** Green parking, residential street, urban heat island, Thermal infrared camera

# Green Growth In Iskandar Malaysia: Scrutinizing The Link Between Green Growth and Social Policy

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#### Abstract

Current debate on green growth suggests that negative connotations of alteration on economic, technological and institutional aspects towards a greener transition indirectly give impact to low-income and vulnerable groups, thus forcing different social groups to be harmed by social injustice. Social justice, being central to combating poverty and inequality, is an issue that has not been clearly prescribed within the concept of green growth. Although it has received less attention, social justice has been aradually acknowledged as an effective tool to drive structural change for potential transformation by recognizing the role of participation, empowerment and social inclusion as the catalyst for a fairer transformation. During the emergence of green growth, the key essence of social inclusion to be incorporated in careful sequencing of transition, redistribution and provision for key societal stakeholders is a vital emphasis. However, the question of whether or not the presence of social inclusion in the concept of green growth is piloting the cities towards a fairer and greener economy is to be addressed. Therefore, the concern of this paper is to analyze policy formation and implementation of a low carbon society project in the new economic region of Iskandar Malaysia. By exploring the link that acknowledges the values and meanings of social inclusion to be manifested in the concept of green growth, the paper conceptualizes the evolution of green growth initiatives in Malaysia from the viewpoint of spatial planning, while studying the linkage and interaction between different policies, actors and institutions during the policy formation process.

**Keywords:** Green growth, social policy, low carbon society, regional development

# System Design Research of Sustainable Campus: Case of New JINDAI Sustainable Primary School in Western China

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#### Abstract

The rapid industrialization, urbanization and the discordance with ecological protection in Eastern China have caused many problems we have to face today. The large rural area in Western China facing the lack of capital and human resource has to adopt a more sustainable way of development for sake of the ecological protection. Sustainable system design in numerous small townships sharing very similar situation in Western China can promote the new development mode. In this paper, we focused on the issue of the sustainable campus design since primary school campus is the key public facilities in rural areas of Western China. A system design method was applied in the case of the new JINDAI sustainable campus in Chongaina for nearly three years, including stages like putting forward concepts, campus design and implementation, and system use evaluation. The campus sustainable system is mainly composed of farmland system, water system and canteen system. The inside farmland system concerns terrace landscape preservation, the farm products and the reuse of farm outputs. In the water system, those output parts in the water cycle are considered to be used as input parts of other systems. In the canteen system, the relationship between the current farm products provision and town system is discussed. The relationship of canteen waste and hot waste water in canteen system and other systems have also been explored. After the analysis of problems and mutual effect of the campus sustainable systems, we put forward and implement the feasible countermeasures. In the new optimized system, we summarized the universal sections of each part and revelation, and finally made it to be a widely popularized model. The design and construction of New JINDAI Sustainable Campus have made periodic progress and success. On the basis of use evaluation, the maturity of the system design method has been promoted, providing very precious experience for future campus sustainable design system.

Keywords: sustainable design, system design, New JINDAI primary school

### Effect of Changing Landuse on Urban Heat Island Formation Vyas Anjana 1 and Dave Bindi<sup>2</sup>

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#### Abstract

Growing urbanisation has led to increase in the built up area, reduction in open and green spaces with in the cities and the periphery. The urban saturation and the enlargement of the built space have determined environmental changes, increasing the already precarious condition of the natural systems in these spaces of high saturation. It results in to the formation of Urban Heat Island (UHI). In recent years urban heat waves and extreme droughts have been reported with increasing frequency, disturbing the environmental dynamics and the quality of life. UHI studies have traditionally been conducted for isolated locations and with in situ measurements of air temperatures. The advent of satellite remote sensing and other geospatial technology has made it possible to study UHI both remotely and on continental or global scales. Using remote sensing techniques, it is possible to analyse the thermal and environmental information gathered by earth observation satellites to produce maps of the urban surface temperature, land use and vegetation index, which can help identifying areas that are susceptible to greater risk in case of occurrence of these weather anomalies. The purpose of this study is to analyse the effect of changing landuse on Urban Heat Island formation, for Ahmedabad city, on a spatio-temporal basis. The Mono Window Algorithm has been used to retrieve Land Surface Temperature (LST) from LANDSAT-5 TM satellite data. Zonal statistics tool has been used in order to classify and identify various administrative wards of Ahmedabad that have remained, and are growing as major heat pockets, as an effect of changing landuse. Reducing the effect of heat island by environment construction is one of the key aspects for city development. This study may help unravel the pattern of growth in Ahmedabad and its implication on local climate and also on the natural resources, necessitating appropriate strategies for the better urban life.

Keywords: Urbanization, Land Use, Urban Heat Island, GIS

# Scenario-based Application of Neighborhood Greening Methods towards Mitigating Urban Heat Environment in a World Heritage Site - Malacca, Malaysia

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#### **Abstract**

Malacca city, located on the west coast of the central part of the Malaysian Peninsula, has been designated as a UNESCO World Heritage Site. At present, it is feared that the urban heat environmental condition will gradually worsen in the future. Employing a new design approach that modifies the surrounding heat environment by creating organically linked neighborhood green spaces, which encourage pedestrian walkability, will assist in efforts to conserve and improve the town as a sustainable heritage site. Through this research, firstly, future greening potential area were extracted based on the field survey and the results of the overlaid site appraisals which encompass microclimatic factor, visibility to the historical landscape elements and theoretical pedestrian movements implementing computer simulation techniques. Based on the identified potential greening area, the three neighborhood greening scenarios were set: 1) based on the existing condition, 2) type of following existing conservation design guideline, and 3) type of maximized greening area with new pedestirian pathways. Then, the microclimate simulation was carried out for respective scenarios and the comparative study was made specifically from the viewpoint of where and how much each scenario could contribute to the urban heat environment mitigation through the investigation of changes of micrclimate conditions such as ambient temperature and surface temperature. From the results, we confirmed that the neighborhood greening approaches proposed through this study has been effectively functioned as a streetscape conservation-oriented urban heat environment improvement methods for historical town in a tropical region.

**Keywords:** Heritage Site, Neighborhood Greening, Urban Heat Mitigation, Walkability, Microclimate

### Community Perception of Management Goals in Matoushan National Nature Reserve

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#### Abstract

National nature reserve (NNR) is the important ecological baseline of the ecosystem security of the country. However, it is under the pressure of mass tourism, low participation of local community, and improper management. It is a matter of great urgency to determine strategies and tools in support of the balance between conservation and development of NNR. At present, the management system of NNR in China is a system where the country supervises and the local government manages. The perception of the NNR's management aim has direct influence on the management efficiency and protection effect. In this paper, the issue with Matoushan National Nature Reserve in Jianaxi Province has been analyzed as an example. Local residents and administrators' attitudes and perceptions of the management goals of the NNR were measured from three aspects: (1) response to current policies practiced in the reserve; (2) degrees of perception of community co-management; (3) expectation for future development of the reserve. Based on the measurement of community attitude and intention toward four dimensions of ecotourism and assessment of the values and current threats to Matoushan NNR, five sustainable development strategies have been put forward which involve ecological conservation and recovery, local culture revitalization, industry and program planning, educational tourism planning, and periphery development and management. Seeing the resources inside the reserve areas as a natural, cultural, social and economic asset, ecotourism planning is holistic by integrating the goals of natural resources conservation and those of social and economic improvement in revitalizing and managing NNR.

**Keywords:** Community Perception, Management Aim, National Nature Reserve, Planning Methodology, Sustainable Development

#### Identify Significant Indicators for A Happy City

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#### **Abstract**

Although, happiness has been evaluated by many researchers, there are very limited studies on happy environment, specifically happy cities. In addition, different methods that have been introduced for measuring happiness by previous studies have several major shortcomings. Firstly, happiness is considered equivalent to satisfaction or the quality of life. Secondly, the majority of these methods are not easy to follow and it is difficult to connect them to design process. Furthermore, these methods support only a limited number of indicators and majority of them are not related to the happy environment. Thus, this paper reviews prominent studies on happiness evaluations and happy environment to identify effective indicators for happy cities. It also attempts to highlight current happiness evaluation methods that consider happy environment to determine how various studies assess cities for happiness. The weaknesses and strengths of different evaluation methods are discussed in this paper to propose a better way to assess happy cities. A systematic review is used to identify indicators for happy cities. Overall, socio-economic factors, environmental factors (e.g., air pollution and temperature), geographical location and facilities management are effective variables for happy cities. This study discusses the challenges in happiness evaluation and attempts to introduce new objectives for futures studies. The results of this study can be used to propose strategies to have happier cities.

**Keywords:** Happiness, happy city, happy environment, measuring happiness

### Health Benefit Modeling and Optimization of Air Pollution Control Strategies in Iskandar Region

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#### Abstract

In recent years, Malaysia is experiencing issues of continuous air pollution and transboundary air pollution. The issues are especially felt in areas that record high economic growth and rapid urbanization such as Iskandar Malaysia, a developing economic-growth corridor in Southeast Asia. This has led to increased rate of Particulate Matter emissions, which further led to increased in the rate of respiratory-related health incidences. Many epidemiological studies have proven that particulate matters in the ambient air are associated with adverse health effects. This will eventually affect the existing and future economy of Iskandar Malaysia, where the exposed population may loss their work days and face increased medical spending as well as reduced in their health. This study focuses on auantifying health and economic benefits from the reduction level of ambient Particulate Matter with a size of 10 micrometers or less in diameter (PM<sub>10</sub>) by using the Environmental Benefits Mapping and Analysis Program (BenMAP), a model which is developed by USEPA. Health impact functions are used to quantify the relationship between a change in the PM<sub>10</sub> level and a change in the related health effects among the exposed population. Up to date, there are three air monitoring stations that are located in the Iskandar Malaysia region and are operated by the Department of Environment (DOE). The samples for this research include a continuous monitoring data on the daily mean of PM<sub>10</sub> for 2010, the 2010 Malaysian Census Data and the number of PM<sub>10</sub> related health cases which are specifically focused in the Iskandar Malaysia region. The final outcome of the modeling compares the co-benefits of air pollution reduction between the baseline scenario and the control scenario for PM<sub>10</sub> level in Malaysia. The results of this study are useful in eventually optimizing and improving the existing policies and strategies for controlling air pollution and PM<sub>10</sub> emission level in Iskandar Malaysia.

**Keywords:** Air pollution, particulate matter emission, PM<sub>10</sub>, health benefits, BenMAP

### Analyzing the Relationships between Health Damage and Socio-Economic Factors in Response with Climate Change Adaptation

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#### **Abstract**

The negative impacts of climate change show variations according to specific groups, and there is evidence that the areas with poor economic conditions or socially disadvantaged groups such as the poor or the elderly are more vulnerable to the impacts. Damages to such socially disadvantaged groups mostly occur in the form of health damage. This health damage is an integration of a variety of factors. This study will examine how socioeconomic factors of regions, among the diverse factors that affect health damage, are related to health damage caused by climate change. Therefore, the objective of this study is to analyze the relationship between health damage caused by climate change and socioeconomic factors in response with climate change adaptation. A multiple rearession analysis was conducted to analyze the relationship between health damage caused by climate change and socioeconomic factors. In addition, 164 local governments in Korea were classified into 83 cities and 81 counties for analysis, in order to determine whether socioeconomic factors operate differently depending on the population size of the city. The results of analysis showed that the relationship between health damage caused by climate change and socioeconomic factors was statistically significant. The analysis of the entire country showed that health damage caused by climate change increases if there are a greater number of recipients of national basic living assistance and lower fiscal selfreliance ratio. The results of classifying Korea into cities and counties showed that socioeconomic indicators affect health damage caused by climate change only in cities. The implications of the analysis results can be summarized into two points. First, socioeconomic factors of the regions damage caused by climate change. socioeconomic factors of the cities affect health damage caused by climate change only if the population size is at a certain level.

**Keywords:** Climate Change Adaption, Health Damage, Socio-economic Factors, Multiple Regression Analysis

### River Front Development: Impact and Need of Integration with EIA Prof. Saswat Bandyopadhyay<sup>1</sup>, Anuradha Adhikari<sup>2</sup>

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#### **Abstract**

Riverfront Development (RFD), which is considered worldwide as making of vibrant public place, has been initiated in India with an aim to restore the natural riverine ecosystem. It started as a part of Ganga Action Plan and gradually spread across all other rivers. Though formulated with the vision of restoring the water quality, in the end these are proved to be projects driven by investment need and highlighting the design part, giving lesser attention on the community and social need. The study wants to focus on the undeniable negative impacts generated by these projects and how it can be integrated with the EIA process. To achieve this, it is started with reviewing available literature on the same both at the international and national level as well as the principles related to it. One case is to be studied partly by primary study involving visual observation as well as consulting the local inhabitants. The research suggests though in some cases, social issues regarding resettlement and rehabilitation of the uprooted people or safety and security of construction workers are highlighted in critical studies, what lags most are the physical components like encroachment of river bed, concretization of flood plain or restoration of water quality. Thus the question on the necessity of including it in EIA can be easily explained followed by the components to be integrated in the impact assessment procedure.

**Keywords:** Riverfront Development, Environmental Impact Assessment, River, Flood

## Human Behavior in Open Space Around Spring Water in A Central Area of Mito-City in Japan

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#### Abstract

In this study, this study demonstrated a transition of surround environment and human behavior around each spring water. Firstly, 38 places of spring water remaining in Mito-city were investigated. As results, spring water was used as drinking water, washing water and fire water. Spring water close to farmland was used as water for agriculture. However, in recent years, although water quality was degraded, it could no longer be used as drinking water. Therefore, a park with hydrophilic water is recently building. Some water located around shrines was sacred place as a God of water and place for cleanse themselves. In addition, some spring water was used as a method of environmental education, prevention training and ponds for fish. From these findings, this study proposes multipurpose spring water use in future.

**Keywords:** Human behavior, hydrophilic water, spring water, Water front, Open space

# Regeneration Guidelines For The Neighborhoods Located In Resedential Areas Of Khulna City, Bangladesh: A Case Study On Housing Tin Tola S.M Asgor Ali <sup>1</sup>

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#### Abstract

In context of limited supply of housing and land in Bangladesh, this is crucial that available lands are utilized at their best to meet the demand of rapidly urbanizing population in cities of Bangladesh. Regeneration of housing sites currently under active uses can be a potential solution to meet the growing demand for housing in cities. This paper focuses on a residential site Housing Tin Tola (govt. rented) in Khulna city, Bangladesh, which accommodates 193 households with a total of 781 people. The study reveals that this site offers a number of regeneration potentials including existing community cohesion, cheap rents and relatively good environmental condition. However, the satisfaction index for municipal services and facilities suggest that the inhabitants are moderately satisfied and demand an improvement of the existing facilities. Again, the residents in the sites need additional floor space because of their changing family structure. Lack of homeownership is a crucial issue in providing stable neighborhood regeneration in Khulna. Although there are a number of regeneration issues those needs to be responded for successful regeneration of this site, there are certain barriers for taking any regeneration initiative on this site. Majority of the residents belong to low income group and they demand additional floor space even they are not capable to pay for the additional space. Since, the affordability of the existing residents is low; it will take a long time to get the recovery costs. The research concludes that change in the internal arrangement of existing infrastructure and redistribution of households may solve the demand for additional floor space. If community ownership of the site is provided, it may solve the ownership problem and the neighborhood will start some secondary income earning activities and improve their economic condition. The findings in this study contribute to increase the knowledge base on sustainable urban reaeneration in residential sites of developing countries.

**Keywords:** Regeneration, Residential site, Bangladesh, Developing countries.

# Urban Optimum Population Scale and Development Pattern Based on Ecological Footprint Model: Case of Zhoushan, China

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#### **Abstract**

The agglomeration of population in the city can reflect the prosperity in the economy, society and culture. However, it has also brought a series of problems like environmental pollution, traffic congestion, housing shortage and jobs crisis. The results can be shown as failure of urban comprehensive function, decline of city benefits, and contradiction between socioeconomic circumstance and ecosystem. Therefore, a reasonable population capacity, which is influenced by ecological resources, urban environment, geographical elements, social and economic factors, etc., is objectively needed. How to deal with the relationship between the utilization of natural capital and development of the city is extremely essential. This paper takes Zhoushan Island as an example, which is the fourth largest island off the coast of China. Firstly, the interactively influencing factors of urban optimal population are illustrated. And method is chosen to study the optimal population scale. Secondly, based on the model of ecological footprint (EP), the paper calculates and analyzes the ecological footprint and ecological capacity of the main island of Zhoushan, in order to explore the optimal population scale of the city. Thirdly, evaluation and analysis of resources and urban environment carrying capacity is made. Finally, the solution of the existing population problems and suggestion of the future development pattern of the city are proposed in the urban eco-planning of Zhoushan Island.

**Keywords:** Urban Optimum Population Scale, Ecological footprint, Ecological capacity, Urban development Pattern

#### Vernacular's Ecology Approach In Urban Kampong Revitalization Case Study: Kampung Adat(Customary Kampong) Mahmud, Bandung District, West Java, Indonesia

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#### Abstract

The economic growth of Indonesia in last decades, especially in urban area, influences the uncontrollable growth of urban development, such as: uncontrolled population, social problems, and environment problem, etc. Such condition has been caused by development which ignored ecology. Vernacular approach has been proved in implementing harmonv between built environment with ecology, which is identical to: humble, oriented. climate-adaptive, architecture local without architect. applicable technology, and low cost. Such approach is based on sustainability; design at present with consideration for the future, which has been shown in the revitalization of Kampung Adat Mahmud, Bandung district, West Java, Indonesia. The aim of the research is to get better understanding how the vernacular's approach can be implemented effectively. The methodology research is qualitative descriptive, which based on observation, in three levels: kampong, neighbourhood, building. The study's outcome is the recommendation of urban kampong's revitalization model, which in turn improving the urban ecology.

**Keywords:** vernacular, ecology approach, urban kampong revitalization

## Protecting Urban Perimeter by Transforming Pyroclastic Flow Area as an Opportunity for an Ecological Corridor

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#### **Abstract**

The catastrophic eruption of Mt. Pinatubo in June 1991 devastated the province of Pampanga. Since then, various hazards have affected areas surrounding the volcano. A considerable expanse of the province, especially the highly populated urban areas, is affected by severe flooding accompanied by lahar deposits during heavy rains. Because the wellbeing of the nearby urban area depends on the stability of peripheral ecosystems, hazards coming from the mountain to the urban space and peripheral rural areas present a challenge along with changing humanenvironment relationship (deforestation and increase in population). The attention and resources poured to protecting urban centers often leave rural areas at the periphery with limited resources to mitigate disasters. Focusing on green infrastructures and open spaces that lie along the periphery of the urban area, this paper explores dryland strategies for flood and lahar mitigation to protect urban perimeter from hazards while providing space and habitat for biological diversity. The corridor as basis of the study was chosen after an analysis of the urban ecosystem which overlaid land cover with landform to produce an ecological map. The focus of the paper is the Pasig-Potrero River where the Megadike is located and where majority of the areas are highly vulnerable to lahar flow during the rainy season. The flood map is superimposed on the volcanic hazard map. Areas within the Megadike are classified according to the level of susceptibility produced from the combined hazard map. Through a literature review, the concepts of bioengineering and integration of landscape solutions in the deep volcanic ash-laden soil are discussed. Strategies for flood and lahar mitigations are presented.

**Keywords:** urban ecosystem, ecological mapping, flood-resilience, lahar mitigation, bioengineering

# An Analysis of the Ecological Structure of Pampanga and Enhancement of the Biodiversity Potential of Road Corridors in San Fernando City, Philippines Francis Esquivel Ong' and Nappy Lacorte Navarra<sup>2</sup>

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#### Abstract

Urbanization is imminent in the city of San Fernando, Philippines, as it undergoes economic and infrastructure development. In the course of urbanization, it is imperative to study the ecological structure in order to integrate green space with city planning and encourage biodiversity enrichment in the urban landscape. As commonly observed in urbanizing Philippine cities, the natural environment is often neglected in favor of infrastructure. Ecological cores have become fragmented, resulting to the formation of small patches in urban matrices. Edges of the patches blur with other land uses, thus compromising the ecological integrity of the city. This paper aims to propose ways on how to improve the ecological structure of San Fernando City by utilizing roads as ecological corridors to connect major ecological cores and patches. The different urban roads are classified into different typologies, in which different interventions will be proposed in order to improve potential for biodiversity integration. These ecological urban road corridors are interconnected with other corridors to link the different green spaces to form an ecological network of the city of San Fernando City.

**Keywords:** Ecology, biodiversity, San Fernando City, road

#### Strategic Planning of the Smart-Green City through Urban Governance Kwang Hyun Yim<sup>1</sup>, Min Cheol Ha <sup>2</sup>, Cheol Ju Jo<sup>3</sup>, Kyung-Min Han<sup>4</sup>, Jong-In Baek<sup>5</sup> and Yong-Un, Ban<sup>6</sup>

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#### **Abstract**

Green city is a city seeking for transition from a traditional city paradiam to a sustainable city paradigm based on such principles of nature as circulation, coexistence, and balance in response with climate change. Cheongju City has been trying to find its identity as a green capital of Korea, a green city, and to develop policy packages to build the green capital in response to climate change based on the concept of sustainable development, which requires the participation of all stakeholders. Has Cheongiu City made a comprehensive transition master plan, ensuring governance during the process of making policies and setting policy priorities? This study has intended to make a transition master plan for the green city and to set policy priorities through governance, focused on Cheongiu City in Korea. To reach this goal, this study has employed participatory approaches including focus group interviews, experts' advisory meetings, and survey methods, etc. This study also developed indicators to evaluate the importance of the values of green city through an expert Analytic Hierarchy Process (AHP) survey method as a participatory approach, and has set policy priorities of green city based on the evaluation results. As a result, the vision and strategies were derived through consecutive group discussions between various stakeholders consisted of professors, NGOs, and local government officials for several months. The vision was composed of ten strategies, for example, 'building circular networks of local material' and 'establishing community economic system,' etc. Finally this study has set policy priorities based on the evaluation of green city's values of each policy. The top five ranked policies were 'building Moosim-chon, river of life and citizens' forests,' 'diagnosis and innovation of administration system,' 'mapping biotope and climate,' 'operating car-free streets,' and, 'building 1000 pocket parks.

**Keywords:** Sustainable City, Transition City, Master Plan, Setting Policy Priorities, Governance

## Agropolitan Development Programs In Malaysia: Way Forward For Agropolitan Development In Malaysia

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#### Abstract

The Malaysian government has carried out a program called agropolitan development in the Malaysian with the aim to transform the physical and socio-economic landscape of rural countryside in line with its vision to become a developed nation by 2020. A total of 21 agropolitant projects have been initiated so far in this country by various authorities namely KKLW and UKAS involving huge amount of investment. With the aim to eradicate hard core poverty and bringing about positive socio-economic changes through a quantum leap strategy, the core business in agropolitan project is commercial-agricultural related activities as propagated by the proponent of the concept, Friedman and Doughlas, 1975. Four agropolitan projects throughout Malaysia have been identified for survey and investigation as a case study. They are located at Batu 8 Lepar and Runchang in Pekan, Pahang, in Gua Musang, Kelantan, in Tg Gahai, Kuala Lipis, Pahang and lastly, in Pulau Bangai, Kudat, Sabah. In April to June 2012, as many as 600 agropolitan participants were visited for questionnaire survey to explore their experiences after joining the projects. Interview with implementing agencies were also conducted. The objectives of the study are to determine the various approaches in the agropolitan implementation and their attainment in terms of achieving the three nexus of agropolitan development objectives namely economic, physical and social development. The study found that agropolitan projects have given remarkable transformation to participants' life and rural development programs as a whole. Nevertheless, despite its achievement, the study also found that there are major challenges ahead that could hinder the success in the future. Factors such as land availability, suitability of projects, human resources competency, budget constraint and project management are among the challenging factors that need to be addressed. The study finally provides some suggestion as to the possible future endeavor of agropolitan programme in Malaysia. These could be addressed in more depth by agropolitan related agencies.

**Keywords:** transformation, agropolitan, human development.

#### TRACK 6: URBAN EQUITY AND AUTHENTICITY (EA)

### Housing Inequality in the Northern Corridor of Bangkok: A Structural Equation Model Analysis

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#### **Abstract**

Over the past decades, Banakok has handled to areat deals of housing demand in its northern corridor, due to a great pace of urbanization. While housing reveals quality of living and significance of one's economic status, housing inequality can be considered as a clearer form of economic inequality. This study examines the structure of housing deprivation and its relationship with the basic capability of low-income households, and the relative desirability of housing and living conditions. While both capability and desirability are said to be unobservable, they are able to be observed through several observable variables. Therefore, a non-parametric latent manifold model is proposed in this study. The method includes two trainable components. The first one is a parametric model that predicts the housing deprivation. The second one is a non-parametric model of the latent capability manifold. The model is trained on a household survey of 587 cases, whose housings are participated in different government lowincome housing policies, and located in the same local area in the northern corridor of Bangkok. The findings reveal a clearer structure of the housing deprivation and the basic capability of low-income households, socio-economic status and their living conditions. According to statistical significance, it has been revealed that any improvement in basic capability of low-income households enhances better housing deprivation. Hence, the housing inequality is improved. This enlightens the issue of considering basic capability of households as an important issue of housing policy implication.

**Keywords:** Housing Inequality, Housing policy, Structural equation model analysis

#### Five Years' Review And Design Promotion Suggestions Of Public Rental Housing Policy In China: Study On Cases In Shanghai

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#### Abstract

The Public Rental Housing Policy was first issued in 2009 in China as a supplement to existing housing policy. During 2009-2010, the construction quantity of public rental house was small, only accounting 5% percent of whole indemnificatory housing. China's former indemnificatory housing program consists of Cheap Rental Houses, Economical Housing and Capped-price housing, including people from the lowest-income to the middle-income. The public Rental Housing Policy without household registration limit and income limit is proposed to be for sandwich class with preferential rent. We choose shanghai for detailed case study. Public rental housing program in Shanghai starts in 2010 with rent volume about 80% of current neighboring fold. Shanghai has the most expensive house rent in China. Millions of sandwich class population choose to live in group-Rental houses with less safeguard and privacy. This results in serious social problems. There should be great necessity for public rental housing, however, the actual effect is not strong. The current rent is still too expensive for sandwich class to live with dignity. Meanwhile, like most indemnificatory housing program in China, the houses are with remote location and less public-transportation, few people can stand such inconvenience. There are several resonable design promotion suggestions for this policy. Firstly, the optimal location with public transportation should be considered and the connection between houses to transportation core for existing public rental houses is the most urgent, community shuttle ferry should be promoted in such residential quarters for instance. Secondly, the rent amount should be decreased. The rent is closly according to construction interest repayment and basic everyday management, so construction standard adjustment is necessary for our government to reduce cost, for example, parking space reduction. The apartment layout design needs to be adjusted to meet real desire of different groups as well as being changeable interior.

**Keywords:** Public Rental Housing Policy, Shanghai, design promotion suggestion, sanwitch group

### An Exploration of the Power Play in Public-Private Partnerships in Housing Re-development in Colombo, Sri Lanka

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#### Abstract

Public - Private Partnerships (PPP) has always appeared with the promise of supporting the public sector in order to fill the gaps. But the researches on PPP mostly discussed the technicalities of the partnerships arrangements and tend to ignore the threat of making People invisible in the process due to the power relations among actors. Therefore this research is an attempt to explore how the power relationships are manifest among the actors in building Public- Private Partnerships (PPP) with reference to the Housing Redevelopment Project in Colombo, Sri Lanka. The study revealed that there are many actors (Visible/Invisible Or formal/ informal) who are traditionally overlooked in building the partnerships and they exercise their power ( not exercise their power at some instances)in different ways. Empirical evidence clearly demonstrates that power is neither something that anybody possesses nor it radiated from a one dominant center in PPP model. Rather power in PPP is mostly associational or collective. Yet as per the empirical evidence it cannot completely deny that public and private sector protagonists exert a visible power in PPP and fully exercise their associational or collective power through different models such as domination, seduction and manipulation. Inability of redefining the role and responsibility of actors in the PPP process would never support to create a level playing field for all actors when there is a higher possibility for the actors who tactically use their power to win. Irrespective of the capacity of intermediate relationships to reshape the power of certain actors, it is not the experience in the reality.

**Keywords:** Partnerships, Exercising of power, Intermediate relationships

# Re-Mobilization and Re-Socialization Support for Disadvantaged Household in Public Housing Community: Case Study of Osaka City, Japan Hong-Wei Hsiao¹ and Tetsuo Kidokoro²

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#### **Abstract**

Public housing has been the largest program of housing subsidies to lowincome families in the United States for fifty years (Olsen and Barton, 1983). This characteristic of public housing as a support for social minority has been widely admitted and adopted in most countries. However, as Crump (2002) notices that during the 1990s, local and federal urban policymakers. neoliberal politicians, and advocates for the poor came to a broad consensus: the geographic concentration of low-income, minority residents in public housing projects located in the inner city constitutes the fundamental problem facing US cities. This unavoidable nature is also described vividly in most public housing projects of different countries. This study aims at challenging some conventional perspectives on public housing by operating the case research of public housing community in Osaka city. We would like to figure out, first, whether public housing actually is an appropriate scheme for solving the demand of disadvantaged household? Or only contribute to further social segregation and exclusion? Second, as Kleita (2001) propose that social networks are vital links to larger social systems and the neighborhood networks of low-income people may thus influence their access to opportunity. We wonder if disadvantaged household moved into public housing lose their existing social network and whether the public housing community provides them with a new and strong social network. Final, we wonder if the public housing community provides support for disadvantaged household to achieve re-mobilization and re-socialization, in other words to get socially and economically independent.

This study tries to provide empirical proof from the qualitative field research to answer the above research questions. We will propose some policy implication according to the practical experience of the public housing community in Osaka, Japan.

**Keywords:** Public housing, re-socialization, re-mobilization, disadvantaged household, social network

### Influences of Housing Settings and Design in Fulfil the Malays Resident's Social Cultures

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#### **Abstract**

This study discusses on the influence of settlement settings and an ideal housing design that can shape a good society and excel in behaviour, the value of life and lifestyle daily. Living environment affects its inhabitants, including an opportunity the Malay community to practice their norm and values. The living environment setting affect resident's included the Malay community. There are two housing categories in Malaysia, namely as an unplanned settlement (kampongs) and planned settlement (urban housing). Nowadays, the majority of the Urban-Malay community living in modern housing estates in urban areas where the living sphere is different from a traditional settlement such as kampong in rural area. The living environment setting like the kampongs encourages Malay residents to practice their social cultures. The Malay socio-cultural is establish slowly and evolved through times based on values required by Islam and inherited from one generation to another. Malays have to comply with all the teachings and practice the values required by Islam. This study focuses on the need to meet Malay resident's social cultures that exist in a house and also the surrounding living environment setting. This paper suggests that, to meet the social cultures of Malays resident's need, a certain physical design attributes from the kampongs should be applied in the modern housing environment at two different levels, called the micro level (house unit) and macro (settlement or neighbourhood). Based on the various literature sources, the requirement of optimum living space, the social activities, the family relationship, the neighbourhood concepts and preservation of a privacy element within Malay settlement have been discussed. As a comparison, the existing of linked housing setting has been reviewed in order to compare between the modern and traditional living environments. This paper proposed that the Muslim-Malay resident social cultures are a basis of Malay lifestyle should be taken into account during the design of a settlement as a whole living environment setting.

**Keywords:** Housing design and settings, Malay social cultures, Linked house, Malay kampong

#### The Values of Traditional Earthen Houses as the Historic Urban Landscape in the City of Bam, Iran

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#### Abstract

Traditional Earthen Houses (TEHs) are one of the original expressions of people's ability to modify their built environment with available and local resources across history of human civilization. The city of Bam and its cultural landscape is excellent evidence in the built earthen structures before the devastated 2003. The Bam's identity is composed of traditional earthen houses including private gardens. The disaster damaged many TEHs in Bam. This paper analyses the TEHs as the vernacular built heritage from the point of view of characteristics and value while highlighting their affects on conservation of urban landscape of Bam. The research methodologies include field observation, interview with local people of Bam and experts and review of documents. The paper concludes that the multi-functional spaces such as courtyard and garden not only make available an intermediary role between other spaces of the house but also are considered to be essential spaces for living. Also, the findings lead to one major point, that in addition to economic, climatic, social and cultural characteristics of TEHs; they have great cultural and architectural importance. TEHs represent an important aspect of historic urban landscape in Bam. The combination of mud walls and gardens in the traditional earthen houses create the main and unique urban landscape of the city. Thus, TEHs are essential features, cultural, social and economic capital of local society of Bam should probably be increasinally valued by maintenance, restoration and rehabilitation practices. They preserve the value of traditional buildings in use, giving it a new significance, while offering affordable housing for as many people as possible.

**Keywords:** Traditional Earthen Houses (TEHs), Bam, historic urban landscape

### Keeping Uniqueness of Yogyakarta with Tagline "Jogja Istimewa" (Jogja is Special)

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#### Abstract

'Pisowanan Agung Event' (Great Meeting between King and people of Yogyakarta) on March 7, 2015 in Yogyakarta gives a new spirit in maintaining the uniqueness of Yogyakarta. "Jogia Istimewa" (Jogia is Special) is a new tagline that is expected to give new vitality to all aspects of life in Yogyakarta. Yogyakarta Sultanate is a fractional Islamic Mataram Kingdom that was joined with the Republic of Indonesia since Indonesian independence on 1945. Because this area is special, this region holds a Special Region since 1945 and has legislation governing the merits since the year 2012. One important thing to interpret the privilege of Yogyakarta is the spatial aspects. Yogyakarta is the rapid development area and it is influenced by many forces that could reduce the uniqueness and the privileges. While, spatial aspect is an important part of controlling the development of Yogyakarta to maintain the uniqueness and specialty of Yogyakarta Hadiningrat. Related to the statement above, this article will attempt to explore the uniqueness and specialty of Yogyakarta in terms of spatial, and a subsequent analysis of the forces that affect the uniqueness and singularity of Yogyakarta in terms of space. The method that is used in this exploration is historical and descriptive-explorative approach. From this paper is expected to come out the uniqueness and distinctive spatial patterns of Yogyakarta and also recommendation to mean "Jogia Istimewa "(Yogyakarta is Special).

**Keywords:** Uniqueness, Distinctive, Meanings

### Study on The Renewal of Shanghai Lilong Problem under the Consumer's View

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#### Abstract

Since 2000, the renewal of Shanghai Lilong districts (traditional lane-andalley residential areas) has been more and more combined with tourism and business strategies, creating a new format of urban development. What factors of the districts attract so many consumers? How do they perceive and evaluate Shanghai Lilong? What are the problems of this new format? In this paper, five representative Shanghai Lilong districts are chosen. Through questionnaire survey and relevant researches on consumer groups, the attraction structure and the evaluation of Lilong's characteristics, the existing problems of the districts are thoroughly analyzed. Based on statistic analysis, four major consumer groups of the renewed districts are identified and studied. They are white-collar workers, college students, foreign tourists and businessmen, and local people in Shanghai. The appealing characteristics of Lilong districts perceived by consumers include space environment, cultural connotation, functional formats and cultural activities, and the structure of these characteristics changes with different consumer groups. The renewal of Lilong, catering to the demand motive of the general consumer population, not only improves the image of the city and stimulate consumption, but will also lead to contradictions: the fabulosity and discontinuity in terms of time dimension, and the non-daily life, non-regionalism and non-authenticity in terms of spatial dimension.

**Keywords**: Shanghai Lilong, Consumer, Attraction structure

## Preservation of Urban Cultural Landscape: Case Study of Roji in Kagurazaka, Tokyo

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#### Abstract

Since 2004, cultural landscape concept has been added to the menus of cultural resources in Japan. The Japanese cultural landscape concept is more comprehensive than that of global concept like UNESCO and even covers the urban landscape that was created through the secondary and tertiary industries. However, after ten years have passed since the introduction, no significant urban cultural landscape is officially designated in its capital city Tokyo, although despite the high development pressure, such urban neighborhoods with historic sense of place exist. By examining the roii (alleys) and its cultural landscape in Kagurazaka, which was originally developed by Geisha industry in the central part of Tokyo as a case study, this paper aims to examine how the fifteen-year community's effort to preserve its landscape benefited its town planning but not led to the designation of cultural landscape. The case study was conducted by the on-site research, interviews to the local residents and business owners and archival research. In conclusion, Kagurazaka community has rather viewed the roji and its landscape as a favorable living environment than historic resources, while the academic research supports the roji as historic resource and urban cultural landscape. To better preserve the urban landscape as living environment with authenticity, two approaches need to be combined in the future. Cultural landscape study may need to evaluate the dynamics of changing actors that preserved the urban cultural landscape as living environment to understand the ongoing process of continuity of urban cultural landscape.

**Keywords:** urban cultural landscape, historic preservation, urban conservation, town planning

### A Study on Development Directions of Castle Towns based on Different Types in Small and Medium Sized Cities

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#### Abstract

Castle towns are mostly located in small and medium-sized cities as precious assets for keeping physical, historical, and cultural heritage in Korea. However, as a result of modernization, cities which conserve the original form of castle towns are not many, and the question about how to integrate existing cities is raised because obsolete downtown and deteriorated residential places are closely linked. Therefore, this research aims to types of castle towns suggesting the development direction with the types of castle towns. The castle towns are classified into 3 types: type I castle towns which conserve castle as an original form, type II castle towns where some parts remain, type III castle towns where the site only remains because the castle was destroyed. The development direcitions of different types of castle towns were analyzed by multiple regression analysis. Multiple regression analysis suggested different type of castle towns by analyzing variables of important effect in the field of 3: urban and system, project operation and management system, development project. As a result of analyzing development plans in accordance with the types of castle town, this study came to a conclusion as follows: First, castle towns that conserve castle as a shape closer to the original form should become a growth center in history and culture by linking its life zone and economic zone to surrounding areas, leading to a growing small and medium-sized city. Second, a city, where some parts of the castle remain, should promote the invigoration of the local economy through the inflow of talented people who are able to use historical and cultural resources that city holds by securing urban competitiveness by attracting creative industries related to cultural arts to the city. Third, regarding the castle towns, where the site only remains, and the castle was destroyed, the qualitative improvement should be a prerequisite through providing facilities in response to the basic demand of urban spatial structure, prior to the restoration project of the castle town, and the validity of restoration project should be deliberately examined.

**Keywords:** Castle Towns, Historical and Cultural Assets, Small and Medium Sized Cities, Urban Spatial Structure

# The Landscape Change Of Qiang's Settlements In Upper Reaches Of Minjiang River After Wenchuan Earthquake

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#### Abstract

Qiang nationality is one of the oldest nationalities in China, mainly living in upper reaches of Minjiang River in southwest of China. The unique geographical environment and ethnic culture constitute the unique landscape of Qiang's traditional settlements. Settlement is one kind of sustainable cultural landscape which is the carrier of history and traditional cultural, so Qiang's traditional settlements are valuable cultural heritages. Unfortunately, most of Qiang's settlements were damaged in Wenchuan earthquake in 2008, some villages were destroyed completely, and others were damaged in different degree. After the earthquake, according to different damage degree, settlements were reconstructed in different ways. The landscape of Qiang's settlements had been changed greatly by dual influences, the destruction of earthquake and reconstruction after earthquake. Researching the changing process of Qiang's settlements landscape has great significance to the protection of cultural heritage and the inheritance of culture, especially in the period after earthquake. At first, Qiang's settlements are classified into four types with typology method after field research, according to the different degree of destruction and the different model of reconstruction. The five types are settlements restored to original forms in original location, settlements rebuilt to traditional forms in original location, settlements transformed to traditional forms in original location, settlements rebuilt in new location according to unified planning and settlements rebuilt in new location by villagers themselves. Secondly, the five types of settlements are compared with traditional settlements from several aspects including geographical environment, location of settlements, forms of settlements, space structure, building materials and construction technology, in order to research for the change of the landscape characteristics. Finally, the changing processes of each type of settlements landscape are analyzed. The change of villagers' demands for settlements space are analyzed with the changes of their production model, life style, traditional customs, cultural communication, national religion and spiritual pursuit. Based on this analysis, the main factors influencing the changes of Qiang's settlements landscape are summarized.

**Keywords:** Qiang's settlement, Wenchuan earthquake, reconstruction, landscape change

#### Do More Educated Workers Migrate More? Ye Seul Choi<sup>1</sup> Chanyong Kim<sup>2</sup> So Hyeon Lee<sup>3</sup> Up Lim<sup>4</sup>

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#### Abstract

This paper examines the relationship of migration between capital regions and non-capital regions and the level of human capital in Korea using the method of multinomial logistic regression. This paper aims to show whether the high level of human capital of migrants who move to capital regions statistically differs from the other migrants. For analysis, this paper uses the 2006, 2008, 2010 and 2012 panel data from Korean Labor and Income Panel Study (KLIPS). The analysis is divided into two parts of migration based on the region of origin: the migration of individuals who live in non-capital regions and the migration of individuals who live in capital region. In this paper, we consider personal characteristics such as educational attainment and occupations as an indicator of human capital of individual, gender, age, and marriage status as explanatory variables. Our empirical finding is that the educational attainment of individual representing a level of human capital significantly affects the migration behavior moving from non-capital regions to capital regions. According to analysis of migration from Gyeonggi and Incheon to Seoul, the migration within capital regions, individuals who engage in occupation with high skilled and non-manual are more likely to move to Seoul capital regions where favorable conditions for workers in terms of higher wage and better job opportunities can provide. Those results can be understood in the context of human capital theory to maximize personal socioeconomic utilities by migrating to capital regions.

**Keywords:** Human capital, migration, multinomial logistic regression model, Korea

## Revitalizing the Slums as a Micro Economic Center – a Case of Scavenger's Community

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#### Abstract

Slums are an unavoidable by product of a long term development process of any city. The definition of slum is contextual. In developing countries such as India, a slum can be defined as a neglected part of the city and an unhygienic settlement of substandard housing and services which consists of people who sustain themselves with hardships. With a view to make the cities slum free, the term 'slum rehabilitation' has become widely known and many measures are being taken for the same; housing being the major concern. The idea should not be just to provide housing to the slum dwellers but also to equip them with a system to make them self sufficient. Instead of neglecting these people their capabilities should be identified and meaningful and sustainable livelihood should be generated accordingly. Here, system refers to a combination of housing plus livelihood/industrial center within the boundary. In this study, the site is chosen as per the requirements of the livelihood activity selected and the housing and other amenities are provided as per the comfort and requirements of the people engaged in that activity. Provision of training sessions at regular intervals is recommended to keep the habitants familiar with changing trends and technologies. Providing urban poor with housing along with employment opportunities will result in a micro economic centre within an urban settlement which once put into flow shall eventually become a self sustaining community, imparting entrepreneurial spirit in the slum dwellers with improved infrastructure and better quality of life.

**Keywords:** Sustainability, Slums, Revitalization, Livelihood, Scavenger's community

### The Complexity of Jakarta's Mega Urbanization: A Preliminary Observation Asrul Sidiq<sup>1</sup> and Asrizal Luthfi<sup>2</sup>

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#### **Abstract**

Urbanization is a common phenomenon in the world right now, Indonesia is one of the countries that facing urbanization. According to National Statistic Agency of Indonesia (Badan Pusat Statistik), Indonesia's total population increased from 203.5 million to 237.6 million from 2000 to 2010, and the urban population grew from 85.2 million to 118.3 million during the same period. By 2035, based on projection, there will be 66.6 percent of Indonesia's population will live in urban areas. This condition indicates a high level of urbanization and urban development in Indonesia. Especially in Jakarta, which has a 100 percent rate of urbanization. This paper tries to find out what are the economic forces that lead urbanization and urban development in Jakarta in terms of a set of socio-economic indicators on the basis of secondary data. Then analyze its relationship with transportation systems and their effect on utility workers and movement within and between cities and also the implications for labor, land and capital in Jakarta. Based on the findings, the major drive of urbanization and urban development in Jakarta is Foreign Direct Investment (FDI) and agglomeration economies. FDI has grown particularly in property sector that creates opportunity for people to get jobs. To attract FDI, government also supports it with better infrastructure. In terms of transportation sector, government creates toll roads that make Jakarta becomes a big city or mega-city. Beside that, it also displaces people to live outside Jakarta or in suburb area of Jakarta that has impacted low workers utility in Jakarta.

**Keywords**: Urbanization, transportation, economic

#### Mainstreaming Urban Poor In The Economic Activities Through Micro-Finance: A Case Study Of Bhairab Municipality, Bangladesh.

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#### Abstract

A large section of the urban population, 23% of total population in Banaladesh, in 522 declared urban centres are not only poor but also are excluded from economic activities. This paper graues that micro-finance (MF) initiatives through local government bodies could be one potential option to mainstream the urban poor in the overall urban productive activities. During 2004-05 fiscal year, Asian Development Bank (ADB) financed a project, undertaken in 30 municipalities including Bhairab, to provide slum dwelling women with MF so that they can be self-employed and can improve their condition. Reflecting on the effects of MF services in Bhairab this research reports increased capability of the loan recipients to participate in economic and income generating opportunities. Comparing with similar services by NGOs, this study also quantifies the relative importance of reasons to join LG and NGO operated MF programmes (MFP). The overall study results show that, MFPs are clearly benefitting urban poor women in terms of getting access to the credit; they are able to increase their income generating activities, become owner of non-land assets, etc.

**Keywords:** Local Government, Urban Poor, Slum, Micro Finance Programme

### Unraveling Manila's Underbelly: Analysis of the Role of an Informal Community in Manila's Urban Metabolism

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#### Abstract

In a rapidly urbanizing city like Metro Manila, the production, distribution and consumption of goods create an extensive network that includes the large service sector provided by the informal economy. Waste - the byproduct of consumerism – plays an important role in the social geography of Manila, providing places of economic opportunity for informal communities to flourish. The emergence of scavenger communities in dumpsites is a common occurrence in the city. In a developing country such as the Philippines, this is a reality that has become an acceptable way of life for the economically marginalized. The Manila North Harbor along the coast of Manila Bay is an industrial development with port and manufacturing facilities where the city's dumpsite is located. It is also a place where colonies of informal settlements have continued to thrive over the decades. This study focuses on a small informal settlement on the North Harbor called "Ulingan", derived from the word "uling", which means charcoal. Prior to eviction in 2014, Ulingan had over a hundred self-built proprietary charcoal shacks with members of the community working in the production line. The wood used as the raw material in the production of charcoal is also a product of waste, collected or delivered from the ports and demolished houses. The study discusses how an informal community, as a product and processor of waste, becomes an integral component in the city's metabolism as exemplified in Ulingan. The relationships with different urban components are established emphasizing the role of Ulingan as the end processor in the production line of consumption.

**Keywords:** Urban metabolism, Manila, informal settlements

# Regional Wage Gap And Human Capital In Korea : An Unconditional Quantile Regression Decomposition Approach

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#### Abstract

This study aims to decompose regional wage differentials in knowledgeintensive service industries in Korea. Using the data from 2009 Occupational Employment Statistics provided by Korea Employment Information Service, this study applies a quantile regression decomposition method to investigate the level of the wage differentials and what factors determine the wage differentials along the whole wage distribution. Our empirical findings show that all the estimated total wage differentials, composition effects, and price effects are greater in the capital regions than the non-capital regions in knowledge-intensive service industries. The regional human capital composition effects vary on the wage distributions. In particular, the composition effect of occupational skill levels is substantial in the upper part of the wage distribution. Our result is that agglomeration economies affect knowledge-intensive service industries, which is closely associated with the regional wage differentials. This study sheds light on regional economic policies by decomposing regional wage differentials along the wage distribution.

**Keywords:** Knowledge intensity, Service industries, Occupational skills, Regional wage differentials, Quantile regression

## Leadership Styles: Incentive or Disincentive Approach in Addressing Street Vendor Problems in Jakarta And Bandung, Indonesia

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#### Abstract

Street vendors in many developing cities are a dilemmatic situation for city authorities. They are needed by low income citizens, and on the other hand they also create problems such as traffic iam, overcrowding and uncleanliness of city. These problems has long been experienced by most big cities in Indonesia. A newly emerged leadership style, as exhibited by Governor of Jakarta Metropolitan and Mayor of Banduna City, shows two different approaches towards sustainable solution of street vendor problem. While Governor of Jakarta applies an incentive approach to street vendors by transferring them from the streets of Jakarta to appropriate place and most importantly, a legal place, Meanwhile, Mayor of Bandung City applies disincentive approach to the buyers of street vendors by giving penalty to those making transaction with the vendors in "red zone". The Red Zones are assigned in major streets of Bandung. This study was undertaken in Jakarta Metropolitan, the Capital City of Indonesia and Bandung City, the Capital City of West Java Province. The study areas were Tanah Abang in Jakarta and Jalan Kapatihan in Bandung. The choice of Jakarta and Bandung was based mainly on the new paradigm of city leadership in Indonesia as reflected by these two leaders of the city. They are both out-of-the-box leaders. Both approaches exhibit the positive results on the easiness of traffic in the area, positive image of the area as perceived by most citizens, and cleanliness.

**Keywords:** street vendor, city leadership, new paradigm of leadership, incentive to seller, disincentive to buyer.

#### Pedestrian Space Character of The Government-Business Center Area on Corridor Pahlawan Street - Simpanglima in Semarang City

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#### **Abstract**

The development of commercial activities in the pedestrian area in the city of Semarang Central Region happened has spread to all parts of the region and this activity has also been using the open space in the city as space activities. Open spaces that develop the function into the activities of other socio-economic and it can be judged to be a negative influence on the aesthetics of the area which in this case can be a bottleneck in Semarang Pesona Asia action. But even so its presence is considered as a culture that is still practiced today and become a middle-income people interaction and requires a wise action to keep preservation this culture as a character of a city or county region. Therefore, the need to identify the character of the space pedestrian on Pahlawan Street corridor -Simpanglima area. So that the development of commercial activity is to further develop better and do not disturb other environmental elements such as may interfere with the aesthetics of the city. Issues raised in this research is the phenomenon of community activities in the area of Semarang city pedestrian on Pahlawan Street Corridor - Simpanglima area. This phenomenon can be seen from the existence of an office space utilization Central Java provincial government (for at Pahlawan Street) and business center of Semarang (Simpanglima area) but on the road corridor Pahlawan Street becomes connecting of activity that is very well known in Semarang as "nongkrong" space. Historically of Pahlawan Street corridor is a corridor that connects the new era of Dutch settlements in the Old City Center Region (the Dutch era is Government Center). The settlement is a settlement New Temple (is created setting by Thomas Carsten) which are oriented in the South of Simpanglima. Alteration in function open pedestrian space that was originally not intended as a pedestrian space are socio-economic in the Government in Semarang city pedestrian space phenomenon which is extreme involves utilization by many parties. Through qualitative phenomenological method is expected to reveal phenomena that occur. Thus, in this study is expected to find the character of pedestrian space-Simpanglima Hero Road Corridor has become a space to "hang out", "socialite" and socio-economic performance space which is very popular in the city of Semarang.

Keywords: Commercial Activity, Pedestrians, Open Space

# The Estimation of Effects of Subprime Mortgage for Improving the Farmland Pension System Using Intervention Time Series Model

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#### Abstract

South Korea is one of the fastest ageing countries due to longer life expectancy and lower birth rate. And sooner or later ageing population will becomes a big social problem, especially in the rural area. In order to solve this problem, the Korean government develops the farmland reverse mortgage system (FP). The key factor of FP is the farmland value forecasting. The land value is affected by the land tax, economic recession, and subprime mortgage crisis, etc. Therefore this paper estimated the effect of subprime mortgage which significantly affects the farmland value. In order to estimate the external effects of changing rates of farmland value by the subprime mortgage, this paper reviews the actuarial model of farmland pension system, the time series model (ARIMA), OLS regression, and interrupted time series model (ITSA). More specifically this study implemented the purse function model to figures out the changing rates of three key variables of farmland pension which are composed of the increasing rates of dryfield, ricefield, and interest rates. The coefficients of dummy variables of dryfield and ricefield during the subprime mortgage periods are -3.755 and -3.479 respectively. Their regression coefficients before the intervention are -0.007 and -0.004 respectively. It means that the subprime mortgage affects extremely negatively the increasing rates of farmland value. It also shows the similar results in the change of interest rates. Therefore ITSA model should be developed for the long term forecasting for considering the interruption effects, such as public policies and any other interruption.

**Keywords:** Actuarial model, Reverse mortgage, Farmland pension, Interrupted time series, Subprime mortgage

# The Quality of Children's Playground in Ha Noi under the Impact of Urbanization and Community Cooperative Strategy

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#### **Abstract**

When the urbanization has been improving dramatically, the maintenance and the protection of public spaces including the spaces for children are extremely essential because these are the criteria of assessing the quality of urban life and creating the identity of area. The paper indicates the overview of children's playgrounds used in Hanoi especially the quality under the impact of urbanization. In the paper, some pictures and figures show the role of community cooperation in designing and managing public spaces, especially children's playgrounds.

### Comparing Travel Characteristics of Social Exclusion and General Group Yoonjeung, Jang¹ and Seongman, Jang²

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#### Abstract

In many countries, increasingly polarization of income leads inequalities not only in socio-economic respects but also in mobility of opportunity for the persons at risk of social exclusion. For this, urban policy makers try to improve accessibility of public transport in transportation sectors, in addition to providing green spaces and cultural facilities in leisure life. However, despite public investment and supply for social exclusions by governments, the public service for social exclusion corresponds inappropriately to their necessities. Among many causes of social exclusion in aspects of mobility and accessibility of leisure facilities, there are some limited data collections from social exclusion with existing diary surveys or collection methodology based on smart phone. This study discusses what methodologies need to collect data for mobility of social exclusion in travel surveys to conduct an empirical study between accessibility of public transport and accessibility of leisure facilities.

**Keywords:** Social exclusion, Travel survey, Social inequality, Accessibility, Mobility opportunity

## Mapping Poverty Hot Spots in Peninsular Malaysia using Spatial Autocorrelation Analysis

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### Abstract

In September 2000 The Millennium Summit adopted the UN Millennium Declaration, committing nations to a new global partnership to reduce extreme poverty with a deadline of 2015. Eight Millennium Development Goals were formulated of which the eradication of poverty given top priority. However, Malaysia's participation with the UN in dealing with poverty, precede this when it committed itself with the United Nations Decade for the Eradication of Poverty (1997–2006) programme, which was then reinforced when the Millennium Declaration was made in 2000. Nationally, poverty eradication as well as bridging the inequality gap among the major ethnic groups and states has been the main development goal in Malaysia's development agenda independence. In this regards, the principle of "growth with equity" has been the central theme in all Malaysia's development policies and efforts since independence. Although Malaysia has made achievements in reducing the incidence of aggregate poverty across the country from 8.9% in 1995 down to 1.7% in 2012, there still exist pockets of poverty in the rural areas, in certain states/regions and among ethnic groups, as well as in some urban areas. This shows that formulating planning and policy implementation to eradicate poverty now needs to be more spatially focused for the implementation to be more effective. Recognising the incidence of poverty through standard statistical data tables alone is no longer adequate in formulating planning and policy implementation. Through spatial autocorrelation analysis the pattern of distribution of poverty in space over a period of time can easily be visualised and hotspots of incidence of poverty identified. This paper attempts to show how this analysis can assist in focusing efforts to eradicate poverty in Malaysia.

**Keywords:** Poverty Distribution, Spatial Analysis, Malaysia

#### The Lingering Problem of Urban Poverty Zungwenen Utange Jonathan<sup>1\*</sup> and M. Rafee Majid<sup>2</sup>

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#### Abstract

The first priority of the Millennium Development Goals (MDGs) is poverty reduction. All member states of the United Nations were saddled with the mandate of implementing sound policies that will halve absolute poverty by the year 2015. Several studies show that the application of the community-driven development (CDD) model will help developing countries in Africa and Asia to reduce the prevalence of poverty and improve the quality of life of their citizens. The last few decades have witnessed increasing debates from development experts, academics, donor agencies and policy makers calling for the adoption of the CDD as a sure model in planning for socio-economic and environmental development. The focus of the CCD project is to reduce community level poverty through the implementation of projects that meets their felt needs. This paper utilizes both descriptive and inferential methods to analyze the quality of life of households in participating and non-participating settlements in a World Bank CCD poverty reduction project in Kebbi State, Nigeria. The analysis makes use of survey data from 704 households in the study area to show the impact of the CDD approach on the quality of life of participants in settlements. The data analysis revealed that poor households in participating and non-participating communities have less education and assets compared to their well to do counterparts. The paper concludes that, promoting community assistance, traditional thrift system and job creation by government will have positive impact on auglity of life and poverty reduction programmes.

**Keywords**: Community-driven development, poverty reduction, Nigeria

### Water Supply System For The Urban Poor: A Study On Chittagong City Area, Bangladesh

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#### Abstract

Water is one of the most important elements in human life and also recognizes as a social as well as economic commodity. So Water supply is a critical and important factor for public health and economic development of a country. Rapid and unplanned urbanization hamper the water supply systems and creates great challenges to the availability and auality of water in the urban centers of Bangladesh. Chittagong is the second largest city of Bangladesh and commercial capital of the country. Urban poor settlements are also an integral part of Chittagong city, 53.6 % of its total population are poor. They are suffering from various problems; water supply is one of them. Chittagong Water Supply & Sewerage Authority is responsible for providing water, sewerage and storm water drainage services in Chittagong city area. But CWASA can provide its service only 50% of its total population. This research provides a sort of knowledge about how poor people have to manage their daily water demand from alternative sources and tried to indicate and analyze the ongoing multi-faceted problems, with slight concentration on formal and informal water supply and distribution in poor areas. The general conclusion of this research is urban poor people have certain level of capacity and willingness to pay for water but for that there should be an intergraded and propoor policy for water supply and monitoring system. Therefore, proper monitoring system as well as honesty and responsibility of public representative in service providing agencies is very much essential.

**Keywords:** Urban poor, Water supply system, Vendor's water, Pro-poor strategy

### The Characteristics of the Active Leisure Consumption by Young Seniors in Korea: Effects of Time and Income Constraints

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#### Abstract

The world is now faced with the ageing. The global population of people aged 60 years and over is expected to reach almost two billion in 2050, with the proportion of older people doubling from 2006. By the way, the elderly do not have the traditional sedentary lifestyle anymore. They are still young and healthy even after retirement with the development of medical technologies and are well educated about culture and leisure for own quality of life. In particular, improvements in their economic status has led to aggressive investment in hobbies and leisure consumption. They are part of a growing number of "Active seniors", who are willing to spend money to improve their quality of life. In Korea, active seniors are quickly becoming a mainstream consumer group and will certainly emerge as a core consumer group. The purpose of this study is to investigate the actual conditions of leisure life of the seniors aged 50-70 years in Korea and to analyze the difference of active leisure consumption by work status and household income with socio-demographic characteristics. The Individual data of National Leisure Activity Survey is from Ministry of Culture, Sports and Tourism in Korea. The statistics used for empirical analysis were t-Test, Correlation analysis, ANOVA and Multiple regression analysis. The major findings were as follows: (1) the non-retired elderly spend more time in active leisure activities (2) There were significant differences in the types of leisure consumption by gender, age, education level, having spouse or not, and residential area. (3) The variables affecting leisure time were income, age, and residential location. And every independent variable was statistically significant. Results from this study will allow researchers to have a unique view of the elderly leisure and will contribute to making cities age-friendly with leisure environment.

**Keywords**: Active leisure time, Active leisure expenditure, Time and income constraints

# An Attempt of Spatial Building and Planning based on the Healthy Aging and Urban Agriculture:a case of Mansion Garden in the Institute of Building and Planning of National Taiwan University

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#### Abstract

After food security has drawn people's attention and discussion, urban agriculture is brought up to investigate the integration of the safety food supply and the urban life to develop a circulatory system. Taiwan is a typical welfare society of localization household registration, while it goes in the aging society, we find that there are a large amount of community population, outlanders, surviving on scavenging rubbish.Meanwhile,healthy aging has became a vital issue.In our study,the challenge is building and planning urban agriculture based health aging, then we founded an exercitation to execute a program, aiming to constructe the urban farm as a 'exchange, sharing, education' platform for volunteers, social service groups and other users, just to improving the level of quality of life about those nonnative elderly people, helping them have a healthy aging. Our method of planning is participatory planning and tracking observation. Through the work of participation, education, implementation and observation for 10 months, our team has managed to build a local food system for campus agriculture garden,led by students, assisted by Tzu Chi and Taipei Service Centre. Campus agriculture garden has played a vital role in slowing down the poverty of the nonnative elderly, improving the level of their nutrition, supplying work. At the same time, it has also improved the residents'sense of place in the community, beautified the landscape and environment, promoted the local livability. Although urban agriculture could not solve out the problem of survival and daily life of the nonnative elderly fundamentally, changes about the group relations and social relations have begun to the community and personal relationship. Furthermore, it has improved the accessibility, environmentally sustainable and livable of the community.

Keywords: Urban Agricultural; Building and Planning; Health Aging

## Towards Aged-friendly Neighbourhoods in Malaysia Hanan Elsawahli<sup>1</sup>, Dr. Faizah Ahmad<sup>2</sup>and Assoc.Prof. Dr Azlan Shah Ali<sup>3</sup> Faculty of Ruilt Environment, University of Malaysia, 50403 Kurda Lumour, Malaysia

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#### Abstract

#### Research Background:

Neighbourhoods are able to provide quality of life for everybody. As Malaysia is aging rapidly, it is vital that neighbourhoods meet the different needs of older adults for active aging to maintain a quality of life for them. Many researchers around the world were interested in investigating older adults' active aging. In Malaysia, the older adults have been far the least researched group. Therefore, the research aimed to determine the effect of neighbourhood characteristics on older adults' active aging. In particular the research aimed at answering the following key questions: can neighbourhoods promote a quality of life for older adults and promote active aging?

#### Aim:

This study aimed to determine the effect of neighbourhood characteristics on older adults' active aging. In particular the research aimed at answering the following key questions:

- 1. How do neighbourhood environmental variables predict active aging among the older adults and hence lead to their quality of life?
- 2. What are the salient neighbourhood environmental variables that predict older adults' active aging and enhance their quality of life?

#### **Objectives:**

- 1. To investigate the neighbourhood environmental variables and the outcome active aging.
- 2. To identify the potential neighbourhood environmental variables that inhibits active aging in the older adults and lead to their quality of life.

#### Methodology:

The study examined quality of life determinants as explained by active aging domains: social interaction and physical activity that are influenced by the existence of certain neighbourhood characteristics. 385 older adults aged 60+ years residing in high older adults populated neighbourhoods in two different cities (Kuala Lumpur and Ipoh) were surveyed. Multiple regression was used to explore how much variance in active aging variables, the neighbourhood environmental factors explained as a group.

#### Results:

Permeability, accessibility and facilitators to walking are key determinants of active aging. There is a need to improve the neighbourhoods' physical design with regard to these three factors.

#### Implications:

Neighbourhoods benefit the older adults in terms of well-being, quality of life, and active aging enhancement through creating opportunities for social interaction, and promoting of physical activity and its related health benefits.

**Keywords:** Quality of life; Active aging; Neighbourhood characteristics; Older adults.

### Associations between Walkability of Origin/Destinations and Elderly Travel Mode Choice

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#### Abstract

Previous research on examining relationships between travel behavior and the neighborhood characteristics have shown that number of physical attributes, including dense, well-connected, and diverse environment affect people's travel behavior, in particular, walking and public transit. Increasing elderly population in most industrialized nations, this study aims to understand travel mode choice of elderly associated with the built environment. Unlike previous studies, this study systematically compares influence of walkability in origin and destination of each trip on travel mode choice. Travel distance, purpose and other socio-demographic factors were controlled in the analysis. Multilevel fixed effect logistic models show that elderly are more likely to walk and use public transportation than non-elderly residing in similar walkability level. In both elderly and non-elderly groups, influence of walkability in origin is more apparent than influence of walkability in destination on travel mode choice.

**Keywords:** Elderly, Travel mode choice, Origin/Destination, Neighborhood walkability

### Study of Equitable Planning in Chinese Rural Areas Kangle Ding<sup>1</sup> and Jingsheng Li<sup>2</sup>

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#### Abstract

Despite China's urban planning have made a significant progresses on both the theory and practice, but study on rural planning is still backward, especially on the aspect of the equity and justice of rural planning, which are often being ignored and directly harm the interests of the majority of the villagers. This paper takes Shangye village in Xianju county of Zhejiang Province as the study object, personally participates in the village's planning, and studies on the angle of "bottom-to-top" through the method of field surveys and participating in observation. Then analyzes the interests of different groups in the whole process of the village planning to analyze the equity problem caused by the planning and its reasons, concluding that egalitarian distribution system under the public ownership of land is the main factor that influences the equity of rural planning. Finally in the conclusion part of the paper, the author put forwards the corresponding measures.

**Keywords**: Equity, Rural Areas, Rural Planning, Village Planning

### Capturing Actual Perceived Image of International Urban Tourist During Visitation In Kuala Lumpur

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#### Abstract

Destination image in Tourism Business District (TBD) especially in designated urban area often fail to capture real tourism image due to the nature that it was pre-conceive and portray from the view of supply side (or authorities and marketer). In other word, inaccurate image have been promoted from the view of supply-side rather than from demand-side (tourist). From the view of demand side, it was known in the existing literature that most of the tourism image studies focusing on measuring tourist perceived image using the idea of 'before and after' visitation (pre-visit and post-visit). However, a question arise as to how these efforts really capturing the actual image while tourist experiencing the site (during visit). In this context, the advancement in internet and sharing media technology using phone application increase the possibility in capturing 'real time' image or actual perceived image during the visit. One of them is using Volunteer Employed Photographer (VEP) technique. VEP give advantage in reducing cost of labor and equipment to collect the data since the respondent itself acting as a labor by using their own device to capture the image. The innovation and trend on smart phone for instance, allow tourist to capture high resolution photo and instantly shared. VEP in this case is a form of method in data collection that allow qualitative analysis in order to explore in depth the nature and formation of destination image. As Kuala Lumpur targeting to become a world class business city destination, an ideal destination image is critical and actual image will be able to portray correct positioning of the city tourism according to tourist perspective. This paper indicates preliminary findings of 116 international respondents on ongoing survey in Kuala Lumpur business district or also known as golden triangle of Kuala Lumpur representing Bukit Bintang, Raja Chulan and Kuala Lumpur Convention Center (KLCC). The early findings suggest the need to facilitate theoretical integration of tourist-determined images with destination-determined images.

**Keywords:** Destination Image, Actual Image, Tourist Perceived Image, Volunteer-Employed Photographer (Vep)

## A Study on the Evaluation of the Three Hills and Five Gardens in Beijing Western Suburbs as Cultural landscapes

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#### Abstract

The Three Hills and Five Gardens in Beijing Western Suburbs are the models of Chinese classical gardens, the representatives of royal gardens and the complex of natural and urban landscape, possessing great heritage value and featuring the "combined works of nature and of man". This paper aims to judge the area of the Three Hills and Five Gardens as Cultural landscapes based on the evaluation criteria for World Heritage, and conclusively confirms that it meets at least five criteria for the assessment of Outstanding Universal Value by consulting literature investigations: as a masterpiece of human creative genius, it's an important carrier of cultural interchange of multiple Chinese nationalities, a unique testimony to Chinese feudal society, an outstanding example of landscape and an important class of war and peace, which should be classified to the category of Cultural landscapes. Besides, the paper studies further on the interaction between landscape entities and spiritual connotations, including the manifestations of natural features, terrain modification, visual relationship, function system and water system planning infiltrated with the cultural pursuits, and the reflections of political ideals, aesthetic appeals, cultural needs and historical significance of the whole area over the landscape construction and development, throws light on the value exploration of the Three Hills and Five Gardens as Cultural landscapes and promotes us to reflect on the historic conservation and development of Cultural landscapes within the wave of rapid urbanization. The findings of the paper will provide valuable references for further study on the Three Hills and Five Gardens and Cultural landscapes.

**Keywords:** Cultural Landscapes; the Three Hills and Five Gardens; evaluation; landscape entity; spiritual connotation

### Understanding Morphology in the Form of Business Expansion: Perspective of Small Tourism Firm in Coastal Resort Destination

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#### Abstract

Resort morphology literature can be traced back since 1930's and most cases referring to the coast of Europe and United State. In 1970's, it begins to give emphasis on aspects such as land use pattern, infrastructure, Central Business District, Recreational Business District and impact studies. The literature expands to the aspects of socioeconomic, hotel development and resort lifecycle in the 1980's. Later in 1990's, it was extended to politic and investment, tourist behavior, transportation, Tourism Business District and environmental management. Following 2000's, the discussion move into change in land use intensity and restructuring resort strategies. All these aspects are still relevant in the existing literature today. However, it was argued that existing issue from these literatures cannot escape from too much emphasis on the physical aspects. Limited study given to the aspect of non-physical than theoretical components of space management for physical and strategic planning purposes. For example, the aspects of business expansion and entrepreneur growth, and as to how this is able to influence resort morphology. The Small tourism firm manages to sustain their present from generation to generation with increasing skills relevant to financial, personal attitude, business resources and networking, and abilities in terms of operational, managerial and strategic. Therefore, the characteristic of resort morphology are now should be seen in a different context in which the competitiveness and survivability of these small tourism firms is vital to explore. Recently, several literature such as Correia & Brito (2014), Alsos et al. (2014), Zhang et al. (2012), and Liu & Wall (2009) highlight the increasing attention on how important to understand the issue of the reciprocal influence between firms and tourist destinations. Thus, this paper attempted to discuss the need for futher investigation on small firm characteristics and dynamics of business expansion within the complexity of resort morphology.

**Keywords:** resort morphology, small tourism firm, entrepreneurial growth, business expansion

### Presentation and Adaptive Reuse of the Ancient Tea Plantations of Jingmai Mountain

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#### Abstract

The Ancient Tea Plantations of Jingmai Mountain is a cultural landscape with vernacular settlements, locating in the southwestern border area of China. The ethnic minority groups, Dai and Blang as main, live there and manage the tea plantations since 1800 years ago. Jingmai is "a microcosm of the development of Chinese tea culture and civilization, an outstanding representative of the world's tea culture, and a model of coexistence between man and nature. ... agricultural landscape of dryland terrace tea culture..., an ancient tea garden ecosystem which is on the basis of respecting natural resource and sustainable development..." Jingmai has rich tea cultural landscapes, eco-management system, regional ethnic culture, unique architectural styles and villages. But it's facing some unavoidable problems, demand to improve the locals' living conditions and income, lake of residential land, pressure on the environment by the seasonal outbreaks of merchants and tourists, growing tourism, the impact from the outsiders' culture and capital, and etc. The presentation and adaptive reuse plays a role to balance the conservation and development, to stimulate regional vitality, to regulate regional environment and sustainable economic development. This research focuses on the conditions of presentation and adaptive reuse of the Ancient Tea Plantations of Jingmai Mountain. By the special cases and different conservation practices, interaction between nature and the locals will be presented.

### The Sustainable Development Of The Qiang Traditional Settlements Spatial Inheritance For The Upper Reaches Of Minjiang River

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#### Abstract

The Qiang is one of the typical ethnic minorities in China, they are mainly distributed in the alpines and canyons in the upstream of Minjiang river. The harsh living environment, inconvenient traffic conditions, slow economic growth and the primitive religious belief and unique concept of value make them maintain an unique spatial characteristics, including their internal social organization and culture life, making them an important legacy of settlement culture of Chinese nation. Therefore, the fact that how to inherit the culture value of traditional settlement space not only needs to consider the need of humanity but also needs to fulfill sustainable development of society, economy and environment in ethnic areas is an important part of research on new urbanization. The analysis of settlement space of Qiana in the upstream of Minijana river is carried out, based on the value of traditional settlement-space value and use of deep interview and on-the-spot survey, documentation and empirical research to study the historical and cultural evolution, physical space environment and cultural features of Qiang society. In combination with the target and claim of different behavior subjects in the construction of physical space of settlements and make use of traditional property of value of Qiana settlements and the difference in the geographic environment and resources they have and the diverse needs of society during the development of urbanization, making the historical and cultural value of settlement space the foundation for sustainable development and leading to harmonious development of society, environment and economy of settlements; Put forward the principle use style of dynamic and holistic of harmony theory of Qiana settlement space based on the need of people and aroup value, maintaining the traditional mode of conformation and concept of value, building a path of sustainable development of traditional settlements for minority region.

**Keywords:** Qiang settlement, traditional space, cultural inheritance, sustainable development

#### Conserving the Bhutanese Cultural Landscape: The Case of Rinchhending-Shari Chiwog

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#### Abstract

The term "cultural landscape" embraces a diversity of manifestations of the interaction between humankind and its natural environment. The Bhutanese Cultural Landscape is represented through its three co-existing cultural layers which are the human activities, village structure and its buildings. However, the recent elected government aspire to drive a more competitive agricultural industry and they feel that there is a need to protect these heritage elements. This is because, as the economy fluorishes, many of the younger generations chose to move out to other places that offer better job opportunities, education and services. Leaving behind their older village members to work on physically demanding agricultural-based job. Due to this, many paddy fields, orchards and farms left untended causing their villages and farms to be neglected and deteriorate over time. From the understanding from the aforementioned issues, this paper will focus on Shari-Rinchhending Chiwog, investigating the tangible and intangible heritage elements which makes up its overall cultural landscape and how it is tied to the villagers' daily lives from one generation to another. The approach for this study will be through site visit, interviewing the villagers and working with the Division for Conservation of Heritage Site of Bhutan's Ministry of Home and Cultural Affair of Bhutan. This paper will also present the analysis, discussing the findings and also the suitable proposal in the context of conserving the cultural landscape of Shari-Rinchhending Chiwog. In short, this paper aims to highlight the importance of conserving cultural landscape as it is part of the background, foundation, image and identity of Bhutan.

**Keywords:** Cultural landscape, tangible and intangible heritage, conservation

### Study on the Urban Conservation with Consensus Making by Aneyakoji Area Association

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#### Abstract

This study aims to clarify the activities of Aneyakoji Area Association to analyze the urban landscape conservation with the inhabitants' consensus in Kyoto in Japan. As a method of the research, I collected the concerning documents such as administrative planning data and proceedings of the city council. And I analyzed how it realized the urban conservation with the consensus making with the inhabitants. As a result, I clarified the detailed history of the activities of Aneyakoji Area Association for the urban landscape conservation and their role for the consensus making. In July 1995, the plan of the construction of 11-storied condominium was announced. And the inhabitants organized the association in October 1995. They organized the Study Team of Land Use for Local Cohabitation with other subjects in December 1999 to think about the condominium construction project. Due to the consensus making for the urban conservation by the study team, they succeeded in changing the condominium plan for the local cohabitation in 2002, which maintains the local landscape. Furthermore, their activities influenced the thought of the councilors to promote the urban conservation in Kyoto especially in application of floor ratio. Although there was an asymmetry of the both sides of Anevakoii Street, the activities of the inhabitants for the urban conservation was evaluated and it was modified to realize the equivalence of the equivalence of floor ratio in both sides. For the conclusion, we need to make a point of the consensus making with the inhabitants to realize the urban conservation

**Keywords:** Aneyakoji Area Association, urban conservation, consensus making, inhabitants

### Increasing Infrastructure Access of Low-Income People in Peri-Urban Area (Case Study: Peri-Urban of Bandung Metropolitan Area)

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#### Abstract

Urbanization process occurred enormously in the last decade that increased urban population significantly. Rapid development caused by that process cannot be accommodated only by the core areas, particularly in the context of land availability. Facing this reality, peri-urban areas have been growing immensely. Peri-urban areas are those areas located beyond the core areas growth boundary and surrounded by the rural areas; therefore these areas are called as a gray area or transition region. Huge development of this area is one of the impacts of massive development of formal housing equipped by various types of infrastructure on one side without considering the existing infrastructure. On the other hand, the development of peri-urban area cannot be separated from growing numbers of informal housing for low-income groups who do not have access to the land in the core areas. Informal housings are generally not served by basic infrastructure. Infrastructure provision for low income people in peri-urban areas is not only generated by the problem of their economic condition, but also the problem of density, availability of land, and policy. That condition necessarily requires a scheme of specific solution for delivering basic infrastructure provision for those low-income aroups in peri-urban area. The aim of this paper is formulating a model/scheme of basic infrastructure provision for low-income groups in peri-urban of Bandung Metropolitan Area (BMA) in order to increase community access to basic infrastructure. Method chosen in this study is descriptive and comparative analysis. This study recommends communitybased model to be implemented in delivering infrastructure services for low-income groups.

**Keywords:** Infrastructure provision, Low-income groups, Peri-urban area

### People Centered Conservation Its Practice and Issues of The Youth Involvement

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#### Abstract

The Kyoto Vision, produced at the Closing Event in 2012, clearly confirms the shifts of interest has been made from material aspect into the people centered. The shift of interest, therefore, has re-defined heritage conservation as a social process of assessing the heritage value and making a values-based decision not as a scientific or technical practice. Therefore, the people centered in the process of the conservation from the heritage city becomes important. The heritage city with living communities present a special challenges for the sustainable values. Those responsible for develop care, control, and management are encouraged to engage with the local communities. Surakarta City is recognized as the locus of Javanese culture. As the heritage city the youth community which concern in people-centered conservation in Surakarta was various. This paper will focus on evaluating the process of the people-centered conservation, initiative of the community and the networking. This paper aims to clarify the characteristics of each key player, advantages and limitation of each approach and empirical evidence regarding the impact of community initiative on the conservation process in the heritage city. Three communities were examined, community of Kampung Kauman and Kampuna Sondakan, Later, the essential elements of Egan Wheel that can lead to sustainable communities were used to analyzed. It was observed that the people-centered conservation three communities was a process with different several distinctive stage and various key players. The youth communities are active to develop a public awareness, inventory and identify the heritage values in the city.

**Keywords:** People-Centered Conservation, Youth Involvement, People Initiative, Community Planning.

## Conservation Planning for Cultural Heritage Complexity - From the Experience of Lumbini, Nepal

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#### Abstract

Lumbini, the birthplace of Lord Buddha, is one of four major holy Buddhist sites. The master plan for Lumbini (1×3miles), fully designed by Kenzo Tange in 1978, has not vet completed, while the Sacred Garden, a part of it, has been inscribed on World Heritage Lists since 1997. The UNESCO project, "Strengthening Conservation and Management of Lumbini, the birthplace of Lord Buddha, World Heritage Property (Phase 1) ", led by Prof. Yukio Nishimura, has clarified that "preservation and management of the World Heritage property of Lumbini can only be successful if the preservation and management challenges of the cultural landscape and sites that surround the property are addressed at the same time (UNESCO, 2014)." The project proceeding to the phase 2, this study tries to argue how the conservation planning in Lumbini can be addressed by reviewing the outstanding universal value and its setting demonstrated by UNESCO, and how Lumbini has been developed under the conditions where the government and other stakeholders are concerned. As a result, it is necessary to re-frame the conservation scope from the monument to the region where the ancient pilgrimages had been and to re-create today's pilgrimage route in Lumbini, which should be the base of conservation planning in Lumbini as the conclusion. Also, it is an important role for UNESCO to take initiative in the cultural rich region such as Lumbini. That is, although Lumbini is currently experiencing complexity, this can be reduced through evaluating its setting and applying it to future conservation planning with the new creation as the world heritage region by UNESCO's initiative among various stakeholders.

**Keywords:** Conservation Planning, Setting, Outstanding Universal Value, Pilgrim, Lumbini

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# Exploratory Case Study on Informal Cultural Cluster in Bokuto, Japan - In Relation of Physical Features of Art Space and Local Environment - Seunamin Lee<sup>1</sup>

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#### Abstract

In cultural planning, Governance and management of organic cultural cluster become important for self-sustainability. For policy implement, it is carefully considered in its own context of each informal cultural clusters. This paper attempts to grasp main physical features of informal cultural clusters in Japanese context through case study. First, it describes clustering trends of art spaces in Bokuto, Japan. Next chapter is about common features related to physical condition of art spaces by field research with interview. Finally, it reveals art-supportive local environment which might help informal cultural clustering. It concludes that informal cultural cluster in Bokuto has developed by not only artists locational preference but also neighborhood environment; abandoned traditional type of old buildings, social brokerage network for art spaces, and art-supportive community nurtured with experiences of art-related community activities.

**Keywords:** Informal cultural cluster, art space, local cultural development

### Applying the Urban Resilience Theory to Flooding on flood-prone settlements along the Pampanga River

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#### Abstract

By accepting periodic flood as an unavoidable circumstance, urban communities in eastern Pampanaa can adapt to flood flows from the Pampanga River better during high-intensity storms by creating a more ecologically-resilient multi-equilibria system of adaptation. A typical solution is to apply engineering solutions to flooding, resulting in a forced state of equilibrium that is ill-adapted to the changing forces of nature. By understanding the dichotomous theory of urban resilience to floods, strategies can be formed to assess and plan a more adaptive flood hazard management framework. To operationalize the theory, an estimation of stormwater and riparian alluvial flow is developed to understand the volumetric capacity of floodwaters natural floodplains need to accommodate flooding. The rational method of computing runoff is applied to the major watershed forming the flood-prone Pampanga River, determining the percentage of floodable area and moving ecological equilibria. This creates a better understanding of the distribution of flood by providing a baseline for the future planning of mitigation and adaptation urban strategies to flooding such as providing vegetated buffer zones, no build zones, and ground to building floor height.

**Keywords:** Flood resilience, urban planning, spatial planning, GIS

#### Destratifying Social Interaction in High-Rise Living

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#### Abstract

High-rise living makes it difficult for social communities to form despite the provision of several dedicated social spaces at ground, podium, mid- and roof-levels, partially due to the sheer number of residents per block. The pull of easily-accessed, solitary recreational activities such as surfing the Internet and watching television further exacerbates the problem. Social spaces need to be brought closer to residents to promote social interaction. This paper proposes to improve social interaction by supplementing currently stratified social spaces with vertically-connected social hubs using existing transitional spaces in high-rise living, such as the lift lobby, to create micro-communities comprising the residents of each respective floor in a cost-effective way. Previous research indicated that strong communities look after each other, indicating that the creation of micro-communities will create an effect not unlike the defensible space theory. Therefore, this paper conducts a case study, analyses residential high-rise layouts employed in Malaysia, then suggests several possible design outcomes that turn the lift lobby into social spaces at every floor level. More research is required to better integrate social spaces in high-rise living.

**Keywords:** High-rise living, social interaction, social spaces, vertical connectivity

### Taipei is not My Home but My Dream: The Effect of "Urban Dream" on the Choice of Migration Destination

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#### Abstract

With the progress of civilization, the extent of urbanization has expanded, and the percentage of population living in the cities surpassed 50% in 2009. Why so many people prefer to live in the cities? Previous research indicates that the diverse job opportunities, higher wage level, and better environmental amenities are the attraction of cities which can increase individuals' utility. However, in spite of this rational consideration, people usually decide to migrate just on the basis of their impressions of cities and personal belief. That is, if individuals wish to be successful and believe that metropolises are ideal places for them to realize their dreams, they will prefer to migrate into the metropolitan areas. The idea of "urban dream" can improve the effectiveness of traditional migration theory and potentially explain the unreasonably huge population of Asian megacities. This paper explores the effect of urban dreams by constructing a structural equation mod0el which combines the "belief" of urban dreams and the "intention" of migration. The empirical results show that the "belief" of urban dreams has significant positive effect on the "intention" of individual's migration to a metropolis.

**Keywords:** metropolitan; urban dream; migration; intention.

### Effects of Neighborhood Built Environment on Physical Activity in Gated Communities: A Review

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#### Abstract

The emergence of gated communities throughout the world has aenerated significant academic interest. Several studies have been carried out that can be found in the body of literature, which have attempted to investigate the various aspects of life within the gated communities. The range of subjects studied within this context includes the types of gated communities, the associated social and governance issues, the travel patterns, and the daily physical activities. The focus of most of these studies, however, has been on the social and governance issues of gated communities. While little research on the mobility pattern (i.e. walking, cycling and public transport) and physical activities in gated communities has been reported, the available literature suffers from major shortcomings such as identification of suitable indicators to objectively investigate whether these communities have same effects and implications on mobility patterns and physical activities as non-gated communities. The present paper, therefore, attempts to identify the methods for objective as well as subjective study of the mobility patterns and neighborhoods design which affect the physical activities through a systematic review of available literature. The paper identifies suitable indicators to investigate the rate of physical activity in gated communities. For this, the methodologies followed for carrying out such studies will also be critically reviewed to assess their applicability in gated communities. Attempt will be made to clearly chart the differences as well as similarities between the issues concerned with physical activity in gated communities and non-gated communities and attempts to introduce new objectives for future studies. The findings of this study are expected to help design an investigation into the merits or otherwise of the active living neighborhoods.

**Keywords:** Neighborhood Built Environment, Physical activity, Gated communities

#### Acknowledging Tourist Spatial Behavior for Space Management in Urban Heritage Destination

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#### Abstract

How tourists consume spatial activities within a destination at micro level such as urban spaces might reveal the level of motivation among tourists, and arguably critical to be understood for efficiency in space and urban planning management. Due to the large concentration of movement throughout the urban centers, the spatial activities generated by the tourist nowadays were seen as influential forces in shaping the city function. Inaccurate information of their movement may lead into problematic city space management for city planner through incompatible facilities and activities in the tourism destination. Thus, extended perspective as to how tourists consume the destination is critical in understanding tourist motivation and behavior in terms of spatial behavior. In order to comprehensively recognize tourist spatial behavior, there is a need to integrate space (spatial data) with psychological and sociological aspects (non-spatial data). Integrating these two aspects potentially allows the researcher to portray spatial activities generate by tourist at different spaces and times. For this purpose, Melaka City is selected as a case study. It is a well-known as heritage tourist destination and received a large number of tourist arrival as well as movement within its World Heritage Site (WHS) boundaries. An analysis of 128 respondents on on-going survey was conducted in order to acknowledge this understanding of tourist spatial behavior using comparative techniques of traditional and advanced tracking methods to acquire the data. A preliminary finding reveals various variables describing the spatial activity of tourist relevant to tourist space consumption, and therefore their motivation through tourist spatial behavior.

**Keywords:** Tourist Motivation, Tourist Spatial Behavior and Space Management

## Mobile Augmented Reality: A Tool for Effective Tourism Interpretation in Enhancing Tourist Experience at Urban Tourism Destination

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#### Abstract

The formation of tourism experience frequently subjected to complexity of individual tourist psychographical factor, which leads to vast difference in the end experience formed among the respective tourist. However, the fact that travelling is highly subjected to environmental fuzziness and the issue of aeographical consciousness may interfere the emotion of tourist and influence the formation of this experience. The evolution and advancement of mobile technologies had been optimised in improving the way human interact with the surrounding environment. Within this context, mobile augmented reality (AR) technology is perceived as capable in narrowing the gap between the formation of pleasant experience and the issue of geographical consciousness, thus transform the way tourist interact with the destination. Pertaining to this situation, this conceptual paper is attempted to understand the effectiveness of mobile augmented reality in enhancing tourist travel experience on the tourism destination. In relation to this aim, this study is directed to clarify the mechanism and usability of mobile augmented reality in relation to its capability in improving tourism interpretation and to discover the influence of utilisation of this technology towards tourism experience. Critical review of existing literature that relevant to the research area was done in understanding on the extensiveness of impact of mobile AR on tourist and experience formation. Findings revealed the capability of AR in merging virtual information with the real world environment through the platform of mobile device able to create a more dynamic interaction between tourist and surrounding environment.

**Keyword:** mobile Augmented Reality (AR), tourist experience, tourism destination

# Local Wisdom In Spatial Planning As An Adaptation Form Toward The Disaster (Case Study: Naga Village In Tasikmalaya District, West Java Province, Indonesia)

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#### Abstract

Humans are part of the nature, so that human life always have to adjust to the nature. Living in harmony with the nature is the reason why traditional community should organize the space in which they live according to the nature. Local wisdom in spatial planning that belongs to traditional community is a legacy handed down from their ancestors. Local wisdom is a form of adaptation of the traditional community in order to achieve a harmonious life with nature, and avoid disaster. Naga Village in Tasikmalaya District, West Java Province, Indonesia is a traditional village located in disaster-prone areas. However, until now the Naga Village stay safe from the disaster. The objective of this paper is to analyze the spatial pattern that adaptive to disaster in the Naga Village. Descriptive qualitative method used in this study in which the traditional pattern of spatial planning examined using triangulation approach among the study of literature, field observations and interviews. The analysis showed the concept of spatial planning in Naga Village follow the philosophy of Tri Tangtu di Bumi , namely Tata Wilayah. This philosophy is described into a cosmological space that divides the village into three regions, namely good-neutral and bad. The good and bad region are the protected area which are not cultivated. The traditional division of space adapted to its natural condition, so they are safe from disaster. Conclusion, traditional patterns of spatial planning in the Naga village, is authentic of their local wisdom, as a result of community's adaptation to natural disaster-prone conditions.

**Keywords:** Local wisdom, Spatial planning, Disaster prone area, Traditional community

### Living with Others: The Development and Prospect of Animal Governance in Taipei

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#### Abstract

This article examines the development of animal governance in Taipei to explore an oftenoverlooked issue: how should the relationship between human beings and animals be constituted? Transspecies urban theory, right to the city, and urban justice are concepts involved in the discussion. The authors critically examine the reasoning, policies, discourse and measures deployed by the public and private sectors since the 1950s in Taipei. The research is conducted through collection of news reports, official documents, and the written as well as online information of the NGOs. Interviews with the authorities and members from animal welfare organizations are also included. The result should help portray the overall development and prospect of the animal governance in Taipei City. The evolvement of animal governance is intimately bound with urban development, especially in changes such as the transformation of economic base from agriculture and industry to the service trade, the expansion of trans-local flows, the downsizing of households and the increasingly family-like pets, as well as the emergence of the environmentalism and awareness of animal rights. Moreover, animal governance involves issues of classification and differentiated treatments: economic animals, wild animals, companion animals, and laboratory animals are each framed by different fields of regulation, discourses and urban spaces. However, the trans-boundary therein has increased the complexity and controversy of animal governance. In retrospect, animal governance in Taipei from the 1950s onwards shows three primary trends. First is about security: the disease threat from cross-border flows has caused disease control and security precautions to grow stringent. For example, stray animals are harshly captured, the transportation of livestock is regulated, activities like pigeon keeping is discouraged and slaughter of live poultry in the markets is banned. The second trend is about conservation. In the 1980s, the government, facing the international pressure caused by its trade surplus, was impelled to formulate the Wildlife Conservation Act and designated the outskirts of the city as conservation areas, hoping that this would propagate its image of a progressive state. Third, there is the tendency to promote humanity. Religious groups and animal protection organizations advocate the laws of animal protection and the implement of animal welfare, which involves electric slaughter of livestock and their humane transportation, subsidy for the community-based TNR, improvement of animal shelters and the reduction in their euthanasia, etc.

Nevertheless, this animal governance based on security, conservation, and humanity still coexists with the commodification and industrialization of animals, and fails to explore their appropriate relationship with the human beings. Selective exclusion and purification remain the main logic of governance, and the tangled urban nature is penetrated according to such. This article therefore tries to develop a new concept of "the animals' right to the city." It emphasizes that the urban justice of planning should extend to those non-human others. The authors propose that an innovative transspecies planning incorporating the awareness of animal rights should be adopted. This might include the repositioning of city zoos, the establishment of animal-friendly spaces, and the residence right of the wild (stray) animals.

Keywords: human-animal relationship, animal governance, animal rights, right to the city

# Analysis of Spatial Organization Patterns About Qiang Settlements in The Upper Reaches of Minjiang River and Its Evolution Mechanism Meng Ying<sup>1</sup> and Dai Shenzhi<sup>2</sup>

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#### Abstract

The Qiang is one of the typical minority settlements of Chinese ethnic minorities. Especially in the upper reaches of Miniiana River where there are distributions of a large number of Qiang inhabited areas, they have maintained the unique spatial representation and organization pattern because of the blockage by high mountains and canyons and inconvenient of traffic conditions, this in turn has also become the main typical form of ethnic settlement space. As the physical space of villagers' social life, settlement space is not only farmer's inheritance of villagers' concept of thoughts and value, social customs and the spatial environment cognition but also the long-term interaction result of social spatialization and space socialization. Therefore, the analysis of Qiana settlement spatial organization patterns and evolution has the vital significance to the cultural heritage protection path selection in ethnic areas. Through on-the-spot survey and questionnaire and literature research about typical cases, we have found that their primitive religious beliefs, traditional customs, unique geographic conditions and social development, which all result in abundant characteristics of settlement space. Social relationship and structure and inside the settlement are the most important drivers. Based on the need to survive or adapt to the natural resources and the environment is the foundation of spatial organization pattern. The social relationship is the inherent motion of the Qiana settlement space-organization pattern. While the fact that cultural values and identity cohesion of social structures is the intrinsic fundamentality of promotion the form of spatial organization pattern. The interaction mechanism between the value orientation of identity around neighbors and social process result in the pattern which the Qiana settlement space-organization displayed as the blood, clan and neighborhood relations. This provides the theory foundation for the social development of historical and cultural heritage protection and minority areas.

**Keywords:** Settlements of Qiang, spatial organization pattern, spatial evolution mechanism, social relationship, Social structure

### Government or Markets: Comparative Efficiency and Efficacy of Pro-Poor Housing Supply Mechanisms in India

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#### **Abstract**

With more than a billion people and more than 18 million current urban housing shortage. The approach of the Government of India (GoI) in the last six decades towards meeting housing deficit has consistently shifted from slum clearance and eviction, to subsidized employee housing, to sites and services to insitu upgrade to role of government as enabler and higher role of markets in the sector. In the last decade the focus of the government policy towards housing deficit has once again shifted to subsidized housing and market provided housing with incentives from the government. While the abysmal performance of most of the programs is generally accepted as taken for granted, a scientific research towards this has remained limited. The research identifies three major pro-poor housing in terms of the gaps in their efficiency and efficacy. The efficiency is assessed in terms of the actual outreach to the intended beneficiaries Vis a Vis targeted under the program and the reasons for the gaps in the two. The efficacy is explored in terms of increase or decrease in the standard of living of the beneficiaries in the new housing and reasons for the gaps between claimed and actual improvement if any. Identifies unexplored gaps within and across, the policy rhetoric and practice gaps. A comparative assessment of the government subsidized housing versus the market provided housing program indicates the latter to have performed better in the both efficiency and efficacy. The paper concludes by showing the primary reason for limited efficiency and efficacy of the government subsidized programs in India is the multiple agencies involved and lack of coordination as well as clarity of defined roles of each agency in the policy leading to weak implementation on ground. The long term prognosis of sites under such programs has indicated theirs failure in achieving and sustaining intended outcomes.

**Keywords:** Pro-Poor Housing Policy Rhetoric, Rhetoric Reality Gap/ Efficiency, Efficacy, Government Subsidized Housing, Market Provision

#### **POSTERS**

### Management Model for Sustainable Settlement Areas in Urban Fringe of Jabodetabek Metropolitan Area

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#### **Abstract**

The growth of urban areas in Indonesia, especially in Jabodetabek Metropolitan area, physically marked by rapid growth in the urban fringe (sub-urbanization), which is forming a new settlement areas where its growth tend to be widespread and dispersed randomly as well getting out of control (urban sprawl phenomenon). The urban fringe area is a transitional zone that is in the urban pressures process which resulted in the dearadation of environment and institutional fragmentation so that the growth process leads to unsustainability. The objectives of this research was to design a system model for manage the sustainable settlement areas in urban fringe of Jabodetabek metropolitan area. Analysis were done by system dynamic approach which was employed to design and develop the dynamic model. The dynamic model offered 4 scenarios to manage settlement areas in urban fringe of Jabodetabek metropolitan area. The most effective scenario to manage sustainable settlement area in urban fringe of Jabodetabek metropolitan area is strengthening management institutional capacity. This scenarios was implemented into 5 (five) policies.

**Keywords:** dynamic model, Jabodetabek metropolitan area, sustainable settlement areas, urban fringe

### An Analysis on Effectiveness of Juvenile Delinquency Prevention through CPTED Theory-Focusing on Bupyung Cultural Street-

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#### Abstract

With the weakening function of family and society in modern times, the increase of juvenile delinauencies has become a serious social problem. Juvenile delinquencies have high potential risks in that they lead to adult crimes in the future. Although the spaces where many juveniles get together are the places where exchanges among peers are taking place, they also are the very places with high probability of juvenile delinquencies happening. In fact, the Cultural Street in Bupyung, Inchon is a place where many juveniles gather which was a traditional market in earlier days and later became stagnant with the decline of commercial activities. Degradation of physical environment along with high concentration of juvenile assembly worked as the cause of juvenile delinquencies of the area. Thus, merchants and public officials established theme area called Cultural Street for the revitalization of the street and organized physical facilities. Later, the street began to be revitalized and, as the result, dangerous spaces for iuvenile delinquencies also decreased. Even though it was a reorganization project to revitalize the street, newly formed Cultural Street also contained factors to prevent juvenile delinquencies. The purpose of this study is to analyze the effectiveness of the reorganization project of Bupyung Cultural Street by applying Crime Prevention through Environmental Design (CPTED). CPTED is a principle and practical strategy to reduce crimes and anxiety by planning and transforming the city and building spaces in such a way to eliminate or minimize crime chances through interdisciplinary cooperation. With surveillance, access control and community fortification as its major principles, CPTED is composed of 5 practical strategies, which are natural surveillance, access control, domain fortification, invigoration of activities and maintenance and management. Applying this, this study exhibits reorganization project of Bupyung Cultural Street with causal diagram of system dynamics and analyzes the effectiveness of crime prevention through interviews with related subjects and the occurrence status of iuvenile delinauencies.

**Keywords:** CPTED, Juvenile Delinquency, Planning specialized Street, Governance

### A Study on Urban Regeneration Planning Factors to Respond to Climate Change

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#### Abstract

With the fast social, economic, and environmental changes in cities, many problems arise. The climate change occurring rapidly these days most influences cities. The rapid climate change causes severe weather phenomena and gives a big impact on human life. In cities, all human acts which are considered to be the main culprit of climate change are intensively performed. Also cities feature dense population and a lot of various social infrastructures so that they are greatly exposed to the influence of climate change. These days, too much concentration of population on cities has led into urban expansion, and thereby suburban new towns have actively been developed. The development of suburban new towns resulted in the decline of existing urban centers and reckless urban sprawl, and now reached its limitation. To address the issue, various planning techniques to efficiently use existing downtowns, such as control of new town development, urban compressive development, and urban regeneration, are introduced. In addition, since various kinds of disasters induced by climate change occurred, various plans to build eco-friendly cities, such as ecological city, green city, and low-carbon city, have been established. Up to now, Korean urban regeneration policies include many legal provisions to respond to climate change, which are applicable to relevant projects, but most of them are either in the basic level or are recommendations. Moreover, the provisions to respond to climate change are based on separate planning guidelines, and thus it is impossible to apply them to urban regeneration space in an integrated way(KRIHS, 2013). In this sense, it is necessary to come up with an integrated plan and policy on urban regeneration to respond to climate change. Therefore, to draw urban regeneration planning factors to respond to climate change, this study tries to determine urban declining areas on the basis of population and project change data in urban regeneration areas designated by Seoul Metropolitan Government, and to investigate the weather conditions and urban regeneration planning factors of the areas in order to conduct vulnerability assessment with LCCGIS distributed by National Institute of Environmental Research (NIER) in 2012. In addition, based on the analysis, it tries to propose a specialized urban regeneration strategy to respond to climate change, which meets regional climate conditions.

**Keywords:** Climate Change, Urban Regeneration, Vulnerability Assessment, Seoul Metropolitan Government

### Making Urban Investment Planning Work: Lessons from Three Cities in Indonesia

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#### Abstract

The success of urban development planning will be indicated by the implementation, and how it achieves the development vision and better quality of life. While the implementations of urban development are result of cooperation among development stakeholders to use the resources. The critical challenge in the urban development is that the plan is not connected appropriately with the potential development resources. The paper presents the efforts of three cities in Indonesia i.e. Banjarmasin, Pekalongan, and Surakarta to establish the city development strategy and making urban investment planning work, which was an UNHabitat program of City Development Strategy - CDS on 2011-2014 in Indonesia. The report established through the involvement of researchers in the development process of the program, and deep interview with the informants of cities development decision makers. Mainly the development problem of the cities are regarded to the blurred vision to be achieved in a certain time. Certain committed resources for implementation are mostly established just for two following years, which is also followed by limited knowledge and willingness to access the resource options of city development authorities. The CDS program promoted the collaborative rapid planning for the middle term development. It facilitate the inclusive process of the strategic authorities and resource holders to focus on the achievement city vision through creative development strategies, and integration of sectors in the city development priority areas. The agreement from relevant resource holders promote support commitment, included separated sectorial development budgets. The success of urban investment planning programs and activities are commonly come from a clear development vision and strategy, competent leadership and solid development management team, appropriate institution and value, and consistent efforts to access the development resources. In the operational level, the clear and agreed city vision and strategies will promote the programs and activities achievement. While the readiness of development activities that includes the technical master plan, land provision, local institutions, and beneficiaries become the assets to channeling the city development programs with the external budget resources.

**Keywords:** Urban investment planning, development planning process, urban development investment

### Gotabhization of Colombo: Creating A World-Class Disciplined Space Nihal Perera<sup>1</sup> and Pradeep Dissanayake<sup>2</sup>

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#### Abstract

At the "end" of the civil war and terrorism in mid-2009, the Sri Lankan government began to make Sri Lanka the 'Wonder of Asia'. Conceptualizing "urban development" as the indicator of "the national development", priority was given to making Colombo, the main commercial center of the country, a "world class city" in Asia. Most notably, urban development became a responsibility of the military, which had completed its war, and the Urban Development Authority (UDA) came under the Ministry of Defense. Gotabhaya Rajapaksa, the Secretary of Defense (2005-15), became the authority of urban development. As the "mastermind" of the successful war and a brother of President Mahinda (2005-15), he was accorded extraordinary power, unprecedented in the history of urban development in Sri Lanka. The powers only parallel figures such as Haussmann and Robert Moses. This is a development process that should be studied. The paper has two objectives: First, it compare and contrast what I call Gotabhization with similar urban development practices such as Haussmannisation in Paris in late-1850s and Robert Mosses' restructuring New York City between in the 1940s-1950s. Second, the paper will identify the political, economic and motivations that precipitated the demand Gotabhayanisation and the disciplining of Colombo. I so doing, the paper will question Gotabhaya's knowledge of a "world-class" city, especially whether it was simply based on the appearance of physical space in cities like Singapore, Tokyo and/or New York, and will attempt to locate the socio-cultural dimensions of the imagination and the practice. Also alluding to the issue of "right to the city," the paper will highlight both the intentions and the practice of Gotabhization and the lessons that we can learn for Sri Lanka and the region. The study is based on archival and field research and the presentation will be illustrated with slides.

**Keywords:** Colombo; World-class space, Haussmanization, Robert Moses, Right to the city

### Older Adults' Third Places and Perceived Social Connectedness Ji Hei Lee

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#### Abstract

The rapid growth of older adult population and the preference for aging in place is a global phenomenon that will necessitate a reshaping of our communities to reflect the older population's perception and behavior. Social relationship and support in later life are important for older adults' quality of life and health. This study aims to identify what places American older adults frequently use for socializing and what specific characteristics of places contribute to their visit. Places that people go for socializing on regular basis outside their home were defined as third places. This study also seeks to examine the impact of third places on older adults' perceived social connectedness. The study area was two cities, Bryan and College Station in Texas. The subjects were older adult homeowners who lived in their own single-family homes. The randomly selected 1,150 households were visited door-to-door from late March to May in 2014. In total, 320 older adults participated in the study. For survey, the Pick-up and Drop-off method was used. The 10 percent of the previous participants were revisited to check for test-retest reliability. Regression with robust standard errors was used to analyze the impact of third places. Controlling other variables, having a third place significantly influenced older adults' perceived social connectedness. For older adults having a third place, the number of third places and trip frequency did not make any significant difference in the level of perceived social connectedness. Third places most frequently visited by older adults were churches, restaurants/cafes, and gym/exercise places. Friendly people, atmosphere, and activities were the major contributing factors for older adults' visit to third places. The findings of this study suggest that allowing small-scale commercial land uses, especially food services and recreational facilities, in residential areas would help older adults to be more socially connected and ultimately healthier.

**Keywords:** Aging in Place, Third Place, Perceived Social Connectedness, Social Isolation, Older Adult

### Revitalization Plan for Declining Commercial Areas of Old Urban Centers in Korea: Focusing on Jung-Gu in Incheon-

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#### Abstract

Although there have been outward expansion of cities and dissipation of functions of urban centers during rapid economic growth period of Korea, existing urban centers have experienced a radical decline with population decrease, economic recession and deterioration of living environments. Even though commercial greas in old urban centers were once the places of revival of local economies, they are now suffering from decline of local economies due to various problems and factors. In order to revitalize old urban centers, it is necessary to find out ways to reinvigorate economic, social and cultural aspects as well as physical one. Revitalization policy to reinvigorate declining commercial greas affects not only local economies but enhancement of value of local communities and improvement of quality of life for the local residents. This study aims to conduct analysis on Jung-Gu in Incheon by quantitatively analyzing vitalization factors for declining commercial greas in old urban centers and to make policy suggestions for the revitalization plan of declining commercial areas. For this purpose, the study firstly investigates the current status of Jung-Gu in Incheon and secondly explores revitalizing factors of declining commercial areas such as demographic, physical, economic and systematic characteristics to suggest implications.

**Keywords:** Old urban center, Decline of urban center, Decline of commercial area, Revitalization, Korea

## Minimum Housing Standard and Housing Satisfaction: A Case Of Korea Jun-Hyung Kim<sup>1</sup>

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### Abstract

The minimum housing standard has been used internationally to ensure the decent quality of housing for low-income households. In Korea, the standard was introduced in 1980s, but has been institutionalized from 2003. It specifies the housing size, the number of rooms, the facilities in kitchen and bathroom, performance of building structure, and safety from disaster and crimes. The most significant function of this standard in Korea is to measure the number of public low-income rental housing which should be provided by government. The number of households which live in unqualified housing based on the standard has been calculated to set the supply of public low-income rental housing.

This scheme of housing policy is based on the hypothesis that households living in the unqualified housing are not satisfied with their housing condition and move to better housing. However, this hypothesis has not been strictly examined—it is entirely possible that although the current residence does not meet the standard, the household is content with current housing condition. This possibility may be greater than expected considering the low housing cost of unqualified housing and the imperfect characteristics of current housing standard—e.g. it does not consider structural or safety issues due to the lack of related information. The effectiveness of housing policy scheme based on the minimum housing standard should be examined by analyzing the relationship between minumum housing standard and housing satisfaction. This paper aims to inspect this relationship based on the Korean Housing Survey.

**Keywords:** Minimum housing standard, housing welfare policy, housing satisfaction, housing quality

## Spatial Tolerance, Space of Tolerance, and the Tribute to Differences Widya Suryadini <sup>1</sup>, Iwan Sudradjat <sup>2</sup>, I. Bambang Sugiharto <sup>3</sup>, and Yasraf Amir Piliang <sup>4</sup>

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#### Abstract

Our current world sees the insurgence of localities, the emergence of individualities, the growing importance of minuscule details, and the never-ending influx of new ways of life. Uniqueness now has become the new paradigm, and consequently, it also means that differences are recognized at a different level. Unfortunately, recognition does not necessarily mean acceptance, for some differences are still looking at with hostility and rejection. Whether in acceptance or in denial, people all are looking for a way to cope with differences. Urban liminal spaces become essential arenas in which differences can be exposed, negotiated, embraced, or rejected. In other word, urban liminal spaces create a certain kind of spatial tolerance for differences to present and be expressed. On the other hand, urban liminal spaces are also become the space of tolerance, as a site where people learn to negotiate differences and make a choice on how to deal with it, for the experience with differences in urban liminal spaces should leave both the exposer and the exposed with strengthened subjectivities. This paper offers a philosophicaltheoretical exploration on the theme of differences and tolerance that occur in liminal urban spaces such as transportation nodes, sidewalks, or urban festivities. The method used in the process of analysis is illustrative method, in which relevant phenomena were selectively used as the illustrations for specific thematic discussion. The discussions shall revolve around the concept of fluidity, especially about fluid logic and fluid becoming, as developed by Luce Irigaray, a feminine philosopher who offers an alternative language to our current [masculine] symbolic order. Examples for illustrations shall be drawn mainly from Bandung (Indonesia), along with examples from other Asian cities such as Singapore, Taipei, and Tokyo as enriching comparison. The themes covered are spatial tolerance, space of tolerance, and the issues of differences, diversities, and complexities that our Asian cities will face in the near future. Using an alternative perspective to discuss these themes will enable us to see the potentiality of Asian urban spaces to become spaces of tolerance amidst the globalized values and the tendency to localized extremism. This paper shall conclude with an assertion on how and why Irigarayan fluidity could become an important philosophy to re-formulate our future Asian urban spaces that acknowledge differences, accommodate diversity, and proudly present themselves as unique spaces of their own.

Keywords: Tolerance, liminal urban space, Irigarayan fluidity, The Other, subjectivity

## Governance for Earthquake Disaster Preparedness in Kathmandu, Nepal Assoc Professor Bhishna Bajracharya

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#### Abstract

Disaster governance is a major challenge in Asian cities due to natural hazards such as earthquakes, landslides and flooding. Kathmandu is one of the most earthquake prone cities in the world and local residents have experienced tremors almost every year. If a large destructive earthquake were to occur in Kathmandu, there could be thousands of casualties and huge losses of property and infrastructure. Part of the reason for this includes Kathmandu's location in a seismic zone, its alluvial soil, a very heavy concentration of people in a small area, loss of open spaces, the lack of proper building design for earthquake resistance, and its insufficient preparedness for earthquake disaster. Government agencies along with local organisations have been developing strategies to increase community awareness, for example through trainings and even the observance of an annual earthquake awareness day. Similarly, a number of studies have been conducted on earthquake risk assessment for Kathmandu with support from international agencies such as UNDP, USAID and JICA. Based on the review of literature and local knowledge of the city, the paper identifies the key roles and challenges of major stakeholders in disaster governance in Kathmandu which includes the Nepalese government, the donor agencies, community groups, media and professional organisations. The paper will review current initiatives for disaster preparedness and discuss ways to improve it. The paper will propose ways to enhance preparedness for earthquakes at the household level. Lastly, the paper will develop a framework for disaster governance in Kathmandu valley as an outcome of the study.

**Key words:** Governance, disaster management, earthquake preparedness, community engagement

## Urban Transformation under Metro Railway Development in Hong Kong Bo-sin TANG

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### Abstract

Transit-oriented development (TOD) is widely regarded as a desirable urban form in reducing urban sprawl, alleviating auto-dependency and achieving sustainable growth of modern cities. Policy leaders and urban planners are often keen to invest in metro railway systems with a view to promoting compact development, enhancing low carbon travel and achieving smart urban growth. However, past research has suggested that such investment does not necessarily bring forward the intended urban outcomes. Compared to London, New York and Tokyo, Hona Kona operates a relatively new mass transit railway (MTR) system of only about three and a half decades old. The MTR has not only impressed riders with its efficiency, cleanliness, affordability and convenience, but it is also worldly famous for being capable of accomplishing commercial profits in its operation. What makes this uniquely possible attributes much to its business philosophy, aggressive property development around railway station areas, and government policy support. The MTR is said to have changed the travel behaviour of Hong Kong people and have transformed the development pattern of the city. This presentation will examine and evaluate the experiences of Hong Kong's metro railway on urban spatial development and property markets. Research findings of this presentation come from two studies funded by the Research Grants Council of the Hong Kong Special Administrative Region (Project No. 525512 and 717113).

**Keywords**: Transit-oriented development, infill redevelopment, institutions and governance.

## Urban Development in The Era of ICT

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### Abstract

Rapid development of information and communication technology (ICT) in some extent and the use of ICT has affected on urban development. ICT have been introduced in urban development through smart city concept. The paper documented herein is a comparative study on ICT used in many sectors among several cities. Data was mainly collected through observation, secondary data analyses, and unstructured interview as well as literature study. The results show that in the government sectors there are ICT based public services in order to achieve good governance. ICT also used in the business sector that affect on geographical aspect as well as new urban development concept such as the changing of movement of people and location decentralization. Inefficient use of space is also reduced through replacement of physical space by virtual space. ICT based services become new model in developing new area in the urban areas. Some of cities have created benchmark of their city as a smart city by developing smart government, smart people, smart economy as well as smart environments. Currently urban development is strongly influenced by the role of ICT in some sectors.

Keywords: Urban development, ICT, Smart City

## Women Entrepreneurs through Community-Based Tourism – Case Study of Setiu Wetland Handicrafts

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### Abstract

Women entrepreneur has become among the main issue on community development which is to contribute towards economic upgrading, job creation and empowerment among women especially in developing countries. In this paper, it will focus on performance of women in entrepreneurship skills especially in small-scale business of handicrafts in Setiu Wetland, Malaysia that has been identified as a case study. The objective is to focus on raising the income levels of the local women with an aim of reducing poverty in this area and to position the handicraft industry in line with other tourism-related industry, along the tourism corridor which integrates the existing culture and natural resources within the villages in Setiu Wetland. The linkages between rural resources particularly in agriculture and tourism are an obvious area for the application of value chain analysis. This paper also explores the linkages between tourism and handicraft in tourism economy of Setiu Wetland which could establish the women empowerment as handicrafts' entrepreneur. The research shows that handicraft is one of the main sources of income women in Setiu Wetland besides fishing as the main income of the household; however that subsistence agriculture and other rural activities are needed to sustain the livelihoods. Through an analysis of their position in the chain, opportunities have been identified in order to improve the economic benefit for the craft producers and artisans through tourism value chain.

**Keywords:** Women entrepreneur, Tourism Value Chain, Handicrafts

## Understanding Transformation of Housing Neighbourhoods in Malaysia from Institutional Change Perspective

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### Abstract

This paper examines the unique features of the causes, process and outcome of institutional change in Malaysian housing neighborhoods. It is written with urban planner in mind and offers an overview on how housing neighbourhood institutions transform to stabilise the assignment of property rights over conventional open neighbourhood (CON). It considers that without clear property rights, ownership patterns of neighbourhood resources in the conventional open neighbourhood theoretically will shift over time with the changes in resources values and institutions. This research takes the advantage of the institutional transformation in Malaysia over the year 1960-2010. It is notice that some conventional open neighborhood (CON) can reinforced into guarded neighborhood (GN), but the others not. This research supported by understanding the empirical and theoretical background of urban theory founded on the property right propositions. Therefore, it identifies unique institutional innovations that have taken place in two dimensions. First, in order to avoid further neighborhood conflicts if conventional open neighborhood (CON) wants to reinforce into guarded neighborhood (GN), physical and institutional designs of conventional open neighborhood accompanied each other during the transformation process. Second, learning from the previous obstacles, the physical and institutional designs of the emerging new guarded neighborhood (GN) adopted the same physical and institutional designs similar to that of gated community (GC). The finding of this research should become one of the strategic tools in understanding the local institutional change and provide research direction for future studies.

**Keywords:** housing neighbourhood, transformation, institutional change, Malaysia

### People Centered And Initiative For The Sustainability Of Urban Kampung:Case Studies Of Surakarta, Yogyakarta And Semarang City Kusumaningdyah N. H<sup>1</sup>, Hardiyati<sup>2</sup>, Akhmad Ramdhon<sup>3</sup>, Lia Sparingga<sup>4</sup>

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### Abstract

Since 2001, some cities in Indonesia already implemented an appropriate planning process, and has good conditions for governance initiatives. Those cities's government introduced direct community involvement through a mechanism called participatory development planning. These systems foster a bottom-up planning approach of community participation to take an initiative effort in various fields such as regional planning, budgeting, and other aspects through community participation start from the lower level of administration of Kelurahan (Sub-district). Included in this development strategy is the people-centered community planning in urban Kampung area. In fact, the development of Urban Kampung was spontaneous and partial. Therefore the community participation in the local planning process should be seen as a mechanism to overcome the socio-economic inequalities and mutual distrust. This paper aims to understanding the role of people-centered and initiative of the community planning, bureaucracy and stakeholders in urban kampung development. The scheme will contribute to clarify and identify the urban kampung issues in heritage city. People-centered community planning is proposed as an alternative to rational synoptic planning. People-centered planning unites participatory planning with population-specific planning. Three cities as the case studies are Kampung Laweyan (Surakarta), Kampung Kotagede (Yogyakarta) and Kampung Bustaman (Semarang) in heritage city will examined.

**Keywords:** Community Planning; Urban Kampung; Development Strategy, Heritage City

## Perception Towards Coastal-Based Tourism Development Case Study: Desaru Beach, Kota Tinggi

Balgis binti Yacob and Ariva Sugandi Permana

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#### Abstract

Coastal-based tourism industry has been aggressively developed since the past three decades. Several studies that have been conducted before recognising the development of coastal-based tourism can give negative impacts to its physical environment. This study aims to identify the impact of coastal tourism development on physical environment of the coastal area as well as the initiatives or steps taken by local authority and developer in order to ensure the sustainability of the tourism development at Desaru Beach, Kota Tinggi, Johor. The study uses a social survey approach with a non-probability sampling. One hundred respondents among the tourists were chosen using simple sampling technique. This survey has also been conducted on the local authority and the developer by using purposive sampling. The quantitative data was collected and then analyzed using descriptive statistics and crosstabulation method whereby triangulation method was used to analyze the strength of both quantitative and qualitative data. The study has found that coastal tourism development at Desaru Beach does not gives negative impacts such as deforestation and coastal erosion. However, it only gives a minor impact to the physical environment when there are rubbish disposals caused by the tourists especially during the holiday seasons. The study also found that there are mandatory steps imposed by local authority that need to be taken by the developer before the development can be carried out. This study concludes with recommendations on the coastal zone management to minimize the negative impacts on coastal physical environment and overcome them.

# Application of Crime Prevention Through Environmental Design in High Density Residential Areas. Case Study: Hua Yang Nian Hua Residential Area, Shijiazhuang City

Lv Yang and Ariva Sugandi Permana

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#### Abstract

The Crime Prevention through Environmental Design (CPTED) has become more significant as safety is a primary concern among people. The CPTED not only has the ability to deter potential crime incidents but also create quality living environment. The objective of the study is to analyse the application of CPTED principles in a residential area of Hua Yang Nian Hua in Shijiazhuang City, Hebei Province, China. This study employs a nonprobability sampling technique. Both male and female respondents were selected for comparison analysis. Field observation and interview are the main instruments used to identify residents' perception of existing CPTED principles in their neighbourhood. The relationship between residents' sense of security and number of existing CPTED principles was also examined. Results show that female respondents reflect a higher demand for CPTED strategies as compared to male respondents. Moreover, based on the respondents' perception, natural surveillance is perceived to have the ability to provide high sense of security in comparison with three other principles, i.e. landscape design, CCTV technology and lighting system. Therefore, several CPTED strategies associated with natural surveillance were proposed. In order to fully implement the CPTED principles, the physical environmental design, support from government and the people's efforts play an important role.

## Use of Smartphone in Enhancing The Tourist Experience in Johor Bahru City Centre

Siti Zulaika binti Nasir and Hairul Nizam bin Ismail

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#### Abstract

Nowadays, new mobile technologies have significant implications in the tourism sector where development of mobile operating system and software applications on the usage and consumption of tourism services are increasing. Internet and smart phones applications profoundly changed the way travelers acquire information on tourism destinations, trip planning and communication. However, smart phone plays a larger part in this process as it contains a variety of informative applications in order to assist the tourists in planning their trip. This study aims to identify the role of smart phone in the tourism sector and factors which drive the tourists in using smart phone for their visits. Moreover, impacts of changes in planning activities and tourist experiences by using smart phone in their trip are also determined. A total of 100 respondents using smart phone in the area of Johor Bahru City Centre were selected in this study. The use of smart phones in trip planning is crucial and useful for online searching as well as sharing moments on social media. The results of the study confirm the use of smart phones have significant implications in tourism sector for planning variety activities, enhancing the effectiveness of experience and adopting better information from the destinations. Thus, it is obvious that smart phone is becoming a main medium as it is user-friendly and flexible in managing tourists' trip and enhancing their experiences.

## Setbacks vs. Extensions: Case Study of Corner Terraced Houses in Taman Universiti, Johor Bahru

Chee Jun Yean and Chau Loon Wai

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#### Abstract

Recent observed phenomenon of corner lot extensions in Taman Universiti terraced residential area that breach the minimum setback requirements sparks the idea of conducting this study. The goal of this study is to determine whether setbacks are really needed. Setback is a development control tool that limits the buildable area of a lot. Hence, setbacks are seemingly working against people's needs for larger living space. There could be shortcomings in the current setback standards. In order to deepen our understandings on setbacks, literature review was done by tracing back some important historical events that contributed to the evolution of setback. The roles, importance and implications of setbacks were also revealed. Site inventory was carried out to observe and prove the phenomenon of corner lot extensions that breach the setback standards. Distribution of corner lot extensions was mapped and types of extensions were identified. Results of the site inventory were shown during interview sessions with the professionals. By interviewing the professionals, their views, perceptions and understandings on setbacks were determined. Analysis and synthesis were carried out to determine the similarities and differences of their responses. At the end, the need for setbacks was justified. This study takes us a step forward to deepen our understandings on setback and prove setback is an indispensable development control tool that can influence quality of living. It minimises the gap between theory and implementation of setbacks. The potential of setback can be maximised through the implementation of effective setback standards which are essential in addressing people's needs for space. The study recommends to interview architects and house owners on their views and perceptions on setback. Future researchers can study on how setbacks influence urban sprawl and stormwater runoff. It is also recommended to study on the extensions of intermediate and end lots of terraced houses.

## Post-Disaster Flood Recovery for Tourism Related Small and Medium Enterprises (SMES) in Pasir Mas, Kelantan

**Ainee Khatijah binti Zainudin and Hairul Nizam bin Ismail**Department of Urban and Regional Planning, Faculty of Built Environment, Universiti Teknologi Malaysia, 81310, UTM Skudai, Johor, Malaysia

#### Abstract

Emergency management is often described in terms of phases or components, using terms such as mitigation, preparedness, response, and recovery. Some sources add or substitute different terms, but virtually every source agree that "recovery" is an essential part of emergency management. Tourism industry at any locations is vulnerable to disaster that threatens its survival. The impact of disaster on tourism industry can be severe and it is essential that recovery is rapid and complete. The impact of disasters on Small and Medium Enterprises (SMEs) and recovery process of the affected stakeholders is one of the least explored areas in disaster risk. Therefore, the objective of the study is to investigate the impact of disaster and post-disaster recovery effort on SMEs tourism industry in Pasir Mas, Kelantan. The study focused on short-term recovery process, which is within four months after the great flood. This study also addresses challenges during the recovery process. Non-probability sampling was used to identify respondents from SME tourism and representative from the government sector in Pasir Mas. A qualitative analysis specifically emerging themes analysis was used to analyse the data collected. Semi-structured interviews were conducted face-to-face with the respondents. A total of 12 respondents from SME tourism related stakeholders were used as key informants and 3 representatives from the government sector were the supported respondents. The results of analysis found that the strategy used by tourism stakeholders for recovery depends on the impact faced. The findings of the study indicate that challenges influence stakeholder's ability to do recovery effort and this can be a reference for the public and private sectors, especially for planners and the tourism industry.

## Public Art, Whose Art?: Public Perception of Public Arts in Kuching, Sarawak Marcella Dares and Chau Loon Wai

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### Abstract

Little is known about the public's thought on public arts and whether they perceive public art to be of any importance to the city. The commission of public arts rarely involves public discourse, hence the people's opinions of these public arts are not known. Therefore, the purpose of this study is to explore people's perception of public arts found in Kuching, Sarawak. The research employs the use of survey research approach with a nonprobability sampling technique. The sample size for the study was 96 samples whereby the respondents consist of residents of Kuching aged 20 years old and above. Additionally, a field observation was carried out to produce an inventory of public arts found in the city of Kuchina. Data collected were analysed in two stages. The first stage uses descriptive statistics, particularly frequency counts, means and standard deviations to describe trends and patterns. The second stage of the analysis was carried out using several statistical tests to test the hypotheses. The public generally have positive views about public arts in Kuching where 21 percent of the respondents agree that the attractiveness and uniqueness of public art enhances the visual quality of space and place in Kuching. Results from the Chi-square test show that there is no significant relationship between respondents' general perception of public art and agreement to participate in the public art process. Analysis from the ztest also found that there is a difference in proportion between the perceived importance of public art as tourism attraction and as a mean to preserve the history and culture. Public art not only enhances the visual quality of the urban environment but also serves as an effective place-making element and contribute to the local economy. By conducting the study, it is hoped that it may improve public awareness, understanding and appreciation of public art in Malaysian cities.

## The Train Has Left: Redefining Railway Town at the Age of Declining Rail Transport. The Case Study of Kluang

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#### Abstract

Historically, rail transport played a key role as a public transportation mode in Malaysia. However, the railway stations appear to be not functioning well since the start of comprehensive road system in the late 1980s. Nowadays, the railway station no longer performs its original functions as a primary transportation mode from preliminary observation. However, there is no doubt that rail transport has historically contributed to the urban development in Kluang. Hence, it is crucial to redefine the urban identity of railway town since it has contributed to its urban morphology. The objective of this study is to comprehend the context of Kluang railway town for exploring the possible approaches in revitalizing it as a railway town in Johor. Observations and focused interviews on old shop operators, train station master, train passengers, local activist and town planners are the survey research approaches in data collection processes. The respondents were the significant stakeholders who have closer relationship and deeper understanding on Kluang as a railway town. Descriptive statistics and comparative analysis were applied. From the analysis, many respondents have least appreciation on Kluang as a railway town because of the limitation on the understanding of Kluang Railway Station. Based on the interview, there is potential to redefine the urban identity of railway town by developing sense of ownership and belongings among the locals. The locals agree local train tourism is a possible approach to recreate place appreciations in redefining railway town at the age of declining transportation functions. It helps to revitalize Kluang Old Town via the reflection of past memories and modern experiences. Local train tourism should be considered to create the sense of belongings in redefining the identity of railway town. Results of the study are expected to deepen relevant authorities' understandings on redefining the identity of railway town.

## Tourist's Level of Satisfaction of Using KI Hop On Hop Off In Term of Promoting Tourism Attraction in Kuala Lumpur

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### Abstract

The Hop On Hop Off bus service is a popular trend especially in urban tourism because it is tourist-friendly. Tourists are free to hop on and hop off at any bus stop provided in the city. In addition, this service also helps to promote tourist attractions within the area. The objective of the study is to identify tourists' level of satisfaction from using the KL Hop On Hop Off service, particularly in terms of promoting tourism in Kuala Lumpur. The research instrument used for this study is a questionnaire that contains three main parts which are tourist profile, trip profile and level of satisfaction. Dichotomous Sampling technique is used and the sample size is 125 respondents. The SERVQUAL model is used to determine tourists' level of satisfaction towards the facilities and services provided. Analysis shows that out of 17 aspects studied, four (4) aspects are found to reach tourist expectations. These aspects are attractive exterior design, bus in good condition, bus follows the establish routes and the staffs provide fast services to tourists. Moreover, results show that five (5) aspects have high tourist expectation but have low level of satisfaction. These aspects are bus routes that provide beautiful scenic views, accurate and correct information, properly functioning information delivery equipment. attractive interior design and staffs response to tourist inquiries. Based on the analysis on tourists' expectation and level of satisfaction, facilities and services that require improvements were identified and suggestions were made to improve the service of the KL Hop On Hop Off.

## Level of Awareness Towards 3Rs Practices Among The Upper Secondary School Students of Different Stream

Azalia binti Mohd. Yusop and Ariva Sugandi Permana

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#### Abstract

Solid waste management has become a serious issue due to uncontrolled waste generation. In depth understanding of the conceptual idea of 3Rs practices in everyday life is vital to raise awareness especially among the school children to cultivate 3Rs practices in their daily life. Thus, the study aims to determine the level of awareness about 3Rs practices among the upper secondary schools students of different streams in Taipina. The study reflects the environmental issues related to the problem of solid waste management. Non-probability sampling technique is used to conduct the study. A total of 100 respondents from three different streams were equally selected. Descriptive statistics and cross tabulation were used to analyse the data. The study reveals that the upper secondary school students have knowledge about the 3Rs concept but do not have specific understanding about the practices. Findings also show that almost 100 percent of students are indirectly engaged with the 3Rs practice in their daily lives although they do not have sufficient understanding about 3Rs practices. Comparison of the level of awareness between three groups of students from different streams show that students from the ordinary school have a higher level of awareness compared to students from science stream and students from the vocational stream show the lowest level of awareness. This is due to the different academic approach, learning environment and the experience that the school offers to the students from the different streams. Therefore, different streams have an impact on the level of awareness about the 3Rs practices. The result is significant to develop strategies in promoting and cultivating 3Rs practices among the society.

## Understanding Location Choice of the Second Hand Goods Business Centre Area at Rengit, Batu Pahat, Johor

Muhamad Redzuan bin Katiman and Abdul Razak bin Jaafar
Department of Urban and Regional Planning, Faculty of Built Environment, Universiti Teknologi
Malaysia, 81310, UTM Skudai, Johor, Malaysia

### Abstract

Business activities conducted in the Central Business Goods Centre in Rengit, Batu Pahat certainly has its own uniqueness especially the location itself as well as the business methods practiced. The goal of this study is to understand the factors that affect traders in choosing the location and space for business activities in the study area. In order to achieve the objectives and goals, this study has used the descriptive method and also the method of Scientific Descriptive so that a clear picture about the factors that affect business activities in that region can be obtained. Information obtained through the collection of data in the questionnaire is about the businessmen who carry out their business activities and also visitors who shop in this business area. The study will focus on three main aspects of traders and visitors such as the relevant profile, background as well as the activities carried out in the study area. Study is done on the indirect aspects of information and data concerning the factors that influence business activities that are available. The results of the analysis show that there are several factors which can affect the traders in choosing an area as an ideal location for their business activities. These factors are (1) the origins of the settlements dealers, (2) the cost of subsistence, (3) the level of education, (4) income earned by the trader, (5) the cost of the rental business roared and (6) the function and size of retail space. All these factors that have been identified can be used as a guide to ensure the businessmen are aware of the factors which affect traders in determining the business district of choice for conducting business activities.

## Application of 5 New Urbanism Principles by Housing Developers in Malaysia. Case Study: Desa Parkcity And Setia Tropika

Nur Azmila binti A.Rahman and Siti Hajar binti Misnan
Department of Urban and Regional Planning, Faculty of Built Environment, Universiti Teknologi
Malaysia, 81310, UTM Skudai, Johor, Malaysia

#### **Abstract**

New Urbanism is the most important planning movement in this century. It is an international movement to reform the design of built environment and it raises our quality of life and standard of living by creating better places to live. New Urbanism is the revival of our lost art of place-making, and is essentially a re-ordering of the built environment into the form of complete cities, towns, villages, and neighborhoods - the way communities have been built for centuries around the world. With the aim of providing better understanding on the charter of New Urbanism, the principles of New Urbanism include connectivity, walkability, mixed-use and diversity, increased density and quality of life. The selection of principle is based on the emphasis made by developer based on the concept plan. The study areas are at Desa ParkCity, Kuala Lumpur and Setia Tropika, Johor Bahru. The developers for both study areas are successful in planning and applying the right approach. A total of 150 samples of residential households for both study areas were selected using non-probability sampling. Overall results of this evaluation will identify the approaches used by the developer in implementing the 5 principles of New Urbanism at the Desa ParkCity and Setai Tropika. In order to achieve this objective, data collection through field studies, questionnaire and interview the developer from Perdana ParkCity and SP Setia was carried out. The data collected were analyzed using descriptive analysis and mean score test. Results of the analysis will be made through the assessment methods used by developers to implement five principles of New Urbanism and the level of satisfaction of residents regarding the application of the principles these two developers. In conclusion, developers in Malaysia should be encouraged to use New Urbanism concept in property development so that the quality of housing is guaranteed.

### Land Use Plan Implementation in Iskandar Malaysia

Efariza binti Abdul Hamit and Foziah binti Johar

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### Abstract

Plans are always made with the intention to be successfully implemented. The issue of insufficient methodologies is a barrier to evaluate the extent of plan implementation. The evaluation of plan implementation needs to be reviewed to identify the extent of the effects of land use plan on developments. The study aims to evaluate the extent developments in Iskandar Malaysia region are in accordance with the land use plan and the factors that affects plan implementation from planners' point of view. Results of plan implementation were obtained using the spatial analysis method, which compares the proposed land use plan of 2006 to the actual land use plan of 2006 and the present land use plan of 2012. The study adopts a semi-structured interview, which was directed towards five town planners in five different local authorities in Iskandar Malaysia. They were also asked to rank the degree of importance of given factors that affect land use plan implementation. They were also interviewed about their perception through the use of open-ended questions. The analysis focuses on five major land uses which are residential, commercial, industry, public facilities and open space. Results are shown in three indices which are accordance, unfulfillment and deviation. Findings reveal that industry has the highest accordance level followed by residential which is slightly lower. Commercial and open space on the other hand has the highest deviation level compared to other land uses. The most important factors, according to the rank, given by planners are consistent policy environment, clear and consistent plan, adequate regulatory system and support decision-making authority. Apart from development pressures, planners perceive that stakeholders' characteristic and plan characteristic influences the land use plan implementation in Iskandar Malaysia.

## The Readiness of Residents to Implement Neighbourhood Farming. Case Study: Taman Mutiara Rini

Afiqah binti Ábdul Rahim and Norsiah binti Abd. Aziz

Department of Urban and Regional Planning, Faculty of Built Environment, Universiti Teknologi Malaysia, 81310, UTM Skudai, Johor, Malaysia

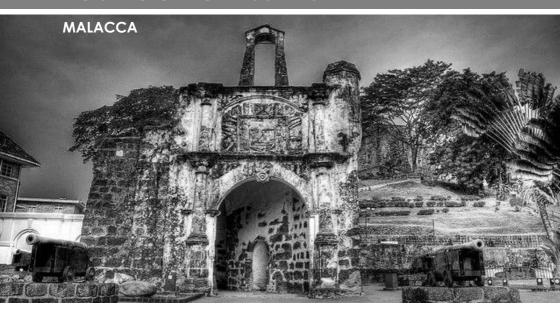
### Abstract

Neighbourhood farming is one of the green neighbourhood initiatives. The initiatives aim to reduce carbon emission resulting from rapid urban development by as much as 40 percent. It also provides measures to address the increase in price of goods, which leads to the increase in household expenditure and the reduction of garicultural land. The aims of the study are to identify the criteria and significance of neighbourhood farming, as well as the readiness of residents to implement individual/family and community farming. The study area is Taman Mutiara Rini, a landed housing scheme. The residents were interviewed on their readiness to apply neighbourhood farming through a questionnaire survey. A total of ninety (90) respondents comprising of either the head of families or their representative were selected. The non-probability sampling technique specifically purposive sampling was used. In addition, the application of existing neighbourhood farming activities and vacant areas were also observed to identify potential areas for future neighbourhood farming. Time constraints, lack of interest, relationship problems with neighbours and problems of farm management were found to be factors that deter respondents to apply neighbourhood farming in the future. It was also found that the involvement of residents' associations, government agencies and NGOs can help residents in terms of capital and farm management. These associations could also organise campaigns to create awareness on the significance of neighbourhood farming. This study recommends the locations and types of plants which are suitable for neighbourhood farming based on successful examples from other areas. The application and presence of neighbourhood farming not only improves the residents' quality of life, but also has positive impacts on the economy, ecology and culture, hence, promotes sustainability.

## **GUIDELINES FOR PRESENTATION**

- 1. Presentation time is 10 MINUTES.
  - a. Moderator will ring once at minute 7, and twice at minute 10.
  - b. Moderator will reserve the right to stop the presentation at minute 10.
- 2. Question and answer **(Q&A)** time is **5 MINUTES** and the moderator may cancel the Q&A due to time constraint.
- 3. Moderator will request presenters to introduce themselves BRIEFLY.
- 4. Moderator will ensure that all **presentation slides** are on the system **15 MINUTES** before session commences.

## POST-CONGRESS VISIT 1



## **Background & Objectives**

Melaka and George Town were jointly prescribed into the UNESCO World Heritage List in 2008. This made Melaka and George Town more significant in terms of their contributions to the diminishing number of authentic living heritage cities in the world. The objectives of this technical visit to Melaka are to:

- i) witness the significant embodiment of a living heritage city
- ii) appreciate how old and new development blend in harmonious coexistence
- iii) understand the multi-cultural aspects of societies within a Malaysian historic city

## **Itinerary**

itinerary					
Day 1	14/08/2015 (Friday)				
08:00	Depart for Melaka from Scholar's Inn UTM				
10:30	Arrive at Melaka Heritage Zone and a briefing by the General				
	Manager of Melaka World Heritage City Pte. Ltd.				
11:30	Heritage Walk I: St.Pauls Hill and its vicinity				
13:00	Check-in and lunch at hotel				
14:30	Visit museums in the heritage zone				
17:30	Heritage Walk II: the Melaka River-front				
18:30	Rest at hotel				
19:30	Dinner				
20:30	Visit Night market at Jonker Street				
23:00	Rest				

Day 2	(Saturday 15/08/2015)
08:00	Melaka river cruise
09:00	Heritage Walk III: Heeren Street and Jonker Street visit to a few
	significant heritage buildings in the old quarters
12:00	Check-out and Lunch
14:30	Visit Malay Village of Kampong Morten
16:00	Depart for UTM

### Costs

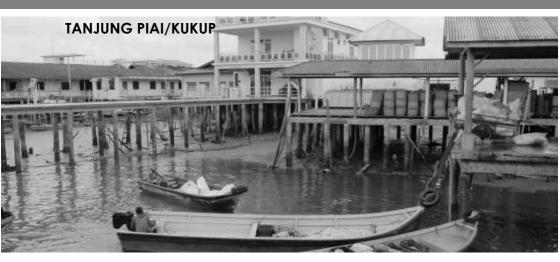
RM 610 (single occupancy) / RM 540 (twin sharing)

Inclusive: transfer (bus to Melaka and back), 1 night at hotel, 2 lunches and 1 dinner

## Visit is conducted by:

Professor Dr Syed Z.A. Idid (Urban Design & Conservation Unit, Centre for Innovative Planning & Development) and WHC of Melaka Heritage Expert

## POST-CONGRESS VISIT 2



## Package A Background & Objective

Tanjung Piai (Tg. Piai), Johor National Park covers an area of 926 hectares, 562 hectares of which are coastal mangroves. It was declared a RAMSAR site in 2013. Tg. Piai is located at the southernmost tip of mainland Asia.

Objective of visit is to introduce delegates to the Ramsar site and a few new development projects in Nusajaya.

## **Itinerary**

## 14/08/2015 (Friday)

- 07:00 Gather at Scholar's Inn and depart for Tg. Piai
- 08:00 Arrive at Tg. Piai
- 10:30 Depart for Kukup Island
- 12:30 Lunch/Jumaat prayer at Kukup Mosque (Muslims only)
- 14:30 Depart for Nusajaya
- 16:30 Return to UTM, Johor

## POST-CONGRESS VISIT 2



### Package B

### **Background & Objectives**

Felda Taib Andak covers an area of 3202 hectares of agricultural and village area. It was selected as a low carbon village project by the Iskandar Regional Development Authority, 2014.

### Objectives of visit are:

To introduce delegates to Felda settlement at the fringe of Johor Bahru City and to visit a few Low Carbon Iniatiatives implemented in the village and new development projects in Nusajaya and Johor Bahru City Centre (JBCC).

#### **Itinerary**

## 14/08/2015 (Friday)

- 07:00 Gather at Scholar's Inn and depart for Felda Taib Andak
- 08:00 Briefing at Felda Taib Andak
- 10:30 Tea at Felda Taib Andak
- 11:30 Depart for JBCC
- 12:30 Visit JBCC/Lunch/Jumaat prayer at Kotaraya Mosque (Muslims only)
- 14:30 Depart for Nusajaya
- 16:30 Return to UTM, Johor

### Costs

#### RM 100 (per person)

Includes: Transfer (bus to destination and back to UTM, Johor), Breakfast and Tour guide

#### Visit is conducted by:

Prof. Dr. Ibrahim Ngah (Rural Planning Unit, Centre for Innovative Planning & Development)

## ORGANISING COMMITTEE

### **ADVISOR**

Prof. Dr. Syed Zainol Abidin Idid

### **CHAIRMAN**

Prof. Dr. Ahmad Nazri Muhamad Ludin

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Prof. Dr. Amran Hamzah

Prof. Dr. Ibrahim Ngah

Associate Professor Dr. Foziah Johan

Associate Professor Dr. Hamid Saad

Associate Professor Dr. Mohammad Rafee Majid

Associate Professor Dr. Muhammad Zaly Shah Muhammad Hussein

Associate Professor Dr. Noorgini Yusoff

Dr. Ariva Sugandi Permana

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