

# UCRSEA PARTNERSHIP PROJECT, JANUARY-APRIL 2018

UCRSEA Partnership Project;

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# Urban Climate Resilience in Southeast Asia Partnership PARTNERSHIP UPDATE January – April 2018

*Photo courtesy of Taylor Martin.*

## PROJECT NEWS

### Partners Research Exchange Workshop and City Visit in Khon Kaen, Thailand, 22-24 January

On 22-24 January, twenty collaborators, partners, experts, and students participated in a research exchange workshop in Khon Kaen, Thailand. The workshop aimed to strengthen the capacity of UCRSEA partners and students in addressing urbanization and climate change issues and was also an opportunity to share their latest research findings, experiences and lessons learned on secondary cities in the Mekong region. Dr. Yanyong Inmuong of Mahasarakham University opened the workshop and welcomed participants to Khon Kaen.



Dr. Robert Farnan from Chiang Mai University gave the keynote lecture on the theory and thinking of complex system and the link to the resilience concept. He discussed the decision-making process, conditions and possibilities driving decisions, social interdependence of humans, the need to unpack and properly understand governance, rethinking cities in Southeast Asia and regionalization, and risk and socio-technical systems.



During the workshop, participants reflected on the implications of urbanization and climate change and shared comparative studies between different locations in the Mekong countries. The core research problem of UCRSEA focuses on improving the understanding of climate vulnerability in urbanizing areas and the ways in which climate vulnerability and urban poverty are linked in Southeast Asia.

The workshop also focused on the challenges of writing up research findings and the technical skills necessary in the documentation and publication process. Participants worked on draft papers on Mukdahan, Khon Kaen, Bago and Ninh Binh, which were individual research on vulnerability assessment conducted by MSU, University of Yangon and CECR, respectively. Speakers provided writing advice, tips and ideas.

Representatives of the Khon Kaen City Municipality, who were invited to the workshop, discussed water-related issues faced by the city. Khon Kaen is one of the rapidly urbanizing cities in Thailand. Urban communities regularly experience flash floods and flood-related disasters.



*Field visit to Pra Lab*

A field trip to Pra Lab, one of the research sites, was also arranged for participants. The Pra Lab sub-district borders with the Khon Kaen City Municipality administrative boundary and experiences water-related issues, including flood diversion and water contamination from runoff. Pra Lab is a naturally low-lying, floodplain area and is primarily suitable for agriculture. This area experiences regular flooding. Participants discussed with the municipality key vulnerabilities, and possible solutions to tackle water-related crises.

### **Airbeam and Citizen Science Workshop, Udon Thani, Thailand, 26-27 February**



After almost a year of using the Airbeam device, which was first introduced to partners in early 2016 to monitor air quality in their respective cities, collaborators and partners from the Mekong countries met again to discuss Citizen Science approaches in Mekong cities to improve urban governance and engage local stakeholders in air quality monitoring. The teams shared their experiences and challenges in engaging with city stakeholders and in influencing policy in tackling air quality issues.

The Airbeam allows users to measure humidity, sound level, particulate matter (PM2.5) and temperature, and share data online. It is based on the open-source

AirCasting platform for collecting, displaying and sharing environmental data using a mobile device. It is used as a research and advocacy tool to encourage community engagement on urban environmental issues through shared learning dialogues.

Prof. Dylan Jones and Dr. Harry Li from University of Toronto gave a presentation, via Skype, on air quality measurements done so far by showing data collected from Hanoi and Mandalay and compared the detected concentration of particulate matter by the AirBeam between these cities. They found that Hanoi shows comparably high pollution levels at noon and in the evenings, but there is large variability in the data. In Mandalay, little variability in the pollution levels was found during the day, but there was large data variability, which implies that measurements are highly dependent on location. In summary, data from the project have the potential to give a good initial understanding of the variations in PM2.5 across the region and greater consistency in the timing and



location of the measurements would be helpful for understanding the local variations in PM2.5 as well as for comparing the pollution levels across the region.

At the workshop's conclusion, participants agreed on the following:

- PM 2.5 data collection will be every Wednesday in March, i.e., the 7th, 14th and 21<sup>st</sup>, and between 8:00-9:00 am and 6:00-7:00 pm. All data will be shared with TEI and participants.
- Participants who signed the sub-agreement with TEI on the Citizen Science Project will revise their work plans, especially the data collection time and locations.
- A Facebook page, Citizen Science PM2.5 (<https://www.facebook.com/Citizen-Science-PM25-1869965859734840/>), was created for partners to share their stories and activities.
- A mailing list, [ucrsea-citisci@listserv.physics.utoronto.ca](mailto:ucrsea-citisci@listserv.physics.utoronto.ca), was created by Prof. Jones for partners to take part in online discussions.



## 2018 UCRSEA Summer Interns

Felicity Campbell and Danielle Reid, University of Toronto graduate students, are the 2018 recipients of the UCRSEA summer internship.

Felicity will be based at Mercy Corps Myanmar, where she will work on various projects including assisting with community mapping for future urban infrastructure projects that will mediate the city's vulnerability to climate-change events, and on an assessment of resilient agricultural practices in Rakhine State. Her research interests include affordable housing provisions, community engagement and urban governance. She holds a Bachelor's degree from the University of Guelph in International Development and is entering her second year as a Masters in Urban Planning student at the University of Toronto.



*Felicity Campbell*



*Danielle Reid*

Danielle, who is taking her Masters in Sustainability Management, will work with the Mahasarakham University team. While there, she will be looking at how agricultural insurance is being used as a tool of climate change adaptation and provide support to MSU's UCRSEA activities such as drafting a pitch for "The Conversation" on MSU research results in Khon Kaen, the Airbeam Project or the Mukdahan Special Economic Zone research. Her background in public policy and sustainability management will be well-suited to this placement.

## UCRSEA Book in the Works

UCRSEA was approached by Springer Nature Publications in August last year to submit a proposal for a book which it is interested in publishing as part of its [Urban Book Series](#). Prof. Amrita Daniere subsequently sent in a proposal, which was then approved. She and Dr. Matthias Garschagen, UCRSEA Collaborator, will be co-editors. The book entitled, "*Urban Climate Resilience in Southeast Asia*", will address the pressing need for improved and fairer governance of climate change in rapidly urbanizing landscapes of Southeast Asia. It will highlight both the vulnerabilities to climate change that residents face in urbanizing areas of Southeast Asia as well as ways to enhance their resilience and hence, economic and social well-being. Interdisciplinary work will be featured that focuses on resilience building efforts to enhance capacity of those who are most vulnerable.

The papers in the volume result from different researchers working in different cities in Southeast Asia and attempting to respond to the project's three core questions. Each chapter will examine urban vulnerability and resilience to climate change in a specific contemporary situation within a particular Southeast Asian context. Taken together, the chapters will provide examples of success and failure that can be used to guide future policy regarding civic engagement and the role of social capital and how to use this knowledge to contribute to a more resilient community. They will describe contemporary efforts to overcome urban governance challenges to improve resilience of the most vulnerable to climate change.

The proposed volume is of both theoretical and practical use for scholars and advanced undergraduate and graduate students, especially in urban and regional planning, geography, sociology, international studies, political science, public policy and anthropology, who are interested in enhancing engagement within Southeast Asia through focusing on networks, norms and values. This volume should prove useful to researchers, planners and policymakers interested in how to better link positive social capital to community participation in developing countries.

The book is expected to be published in early 2019.

## UCRSEA SPREADS THE WORD

### @ Resilient Cities 2018 Congress, April 28th, Bonn, Germany



Astrud Beringer of Mahasarakham University was one of the panelists at the Resilient Cities 2018 Congress on “Planning for urban resilience: Co-development of solutions for transformative impacts.”. She presented her paper, “Inclusive strategies to tackle flooding in Khon Kaen City, Thailand”, which focused on her research on the flooding problem in Pra Lab municipality, a peri-urban area in Khon Kaen City, and how it is being managed.

The Congress report can be found in [https://resilientcities2018.iclei.org/wp-content/uploads/RC2018\\_Report.pdf](https://resilientcities2018.iclei.org/wp-content/uploads/RC2018_Report.pdf).

### @ 2018 Annual Urban Affairs Association Conference, April 6<sup>th</sup>, Toronto, Canada

UCRSEA organized two panel sessions at the 2018 UAA Conference under the special topic, “Shaping Justice and Sustainability Within and Beyond the City’s Edge: Contestation and Collaboration in Urbanizing Regions”. Eight papers were presented which examined distinctive but linked areas of urban vulnerability to climate change in cities of the Global South. Each paper tackled an important aspect of urban vulnerability to climate change with the goal of examining how climate change impacts citizens from an environmental justice perspective, whether in terms land use, health considerations or labor, as well as how citizens might enhance their resilience collectively in the face of such impacts.

Panel 1 — Climate risks management in rapidly developing cities (Photos)  
Organizer & Moderator: Prof. Amrita Danière



Flood Vulnerability and Resilience in Peri-Urbanizing Vietnam: A Case Study from Ninh Binh Province, Vietnam by Hue Le and Ly Bui (Vietnam National University, Vietnam)

Flood: Impact and Responses in Khon Kaen City in Thailand by Astrud Lea Beringer and Jutamas Kaewsuk (Mahasarakham University, Thailand)

Urbanization and the Master Urban Plan of Vientiane: Issues and Prospects by Thanousorn Vongpraseuth (National University of Laos, Lao PDR)

Enhancing urban climate change resilience in Southeast Asia: Lessons from the field by Amrita Daniere and Yanjun Cai (University of Toronto, Canada)

Abstracts are available at

<https://docs.google.com/document/d/1lzBLBUJbPp5oUCS6i6dtCukBF1yIijMjiSRG2I9Pia8/edit>.

Panel 2 — Environmental policies in urban planning (Photos)

Organizer: Dr. Gwenn Pulliat

Moderator: Prof. Douglas Young





Theory of Planned Behavior as framework for communicating health related climate risk in peri-urban: A case of school children in Mekong Delta in Vietnam by Quynh Anh Nguyen (National Institute for Science and Technology Policy and Strategy Studies, Vietnam)

In Pursuit of Urban Resilience: Climate Change Adaptation in Cambodian Cities by Laura Beckwith (University of Ottawa, Canada)

Despite the environment. The implementation of the environmental policy in rapidly growing Lao Cai, Vietnam by Gwenn Pulliat (University of Toronto, Canada)

Migrating towards vulnerabilities: The cascading impacts of structural violence, climate change, and migration on Myanmar labour migrants in Phuket, Thailand by Angelica de Jesus (University of Toronto, Canada)

Abstracts are available at [https://docs.google.com/document/d/1zm-yP-uZ16A59RLMCegMJjyv1djBw0kFi0Nq7\\_SUMBU/edit](https://docs.google.com/document/d/1zm-yP-uZ16A59RLMCegMJjyv1djBw0kFi0Nq7_SUMBU/edit).

### @ Winter-Spring 2018 Environment Seminar Series, January 30<sup>th</sup>, University of Toronto



Prof. Amrita Daniere, UCRSEA Co-Director, gave a talk on “*Urban Governance in the Face of a Changing Climate: Complexity, Political Ecology, and Reality in Southeast Asia*”, on January 30<sup>th</sup> during the School of Environment’s Winter-Spring 2018 Environment Seminar Series. She discussed the challenges presented by governing fast-growing cities in the face of a changing climate and discussed the theoretical frameworks guiding UCRSEA work and how a new approach in decision-making is called for. She also presented a sample of UCRSEA research such as: the socio-political and environmental impacts of development within the Dawei Special Economic Zone (SEZ) in Myanmar; the ways in which Myanmar migrants in Thailand understand, anticipate, and experience climate change effects; and water use/consumption patterns and supply in Khon Kaen, Thailand as they relate to vulnerabilities to climate change.



Tammy Chou (left) and Taylor Whitfield (right), 2017 UCRSEA Summer Interns, were also on hand to present their field research experiences in Myanmar and Khon Kaen, respectively.

## UCRSEA STAFF NEWS

### Auf Wiedersehen, Astrud!

Astrud Lea Beringer, Researcher and Project Coordinator at Mahasarakham University, will be leaving at the end of June to return to Austria. She is looking forward to taking up a new challenge in the near future, either in another Southeast Asian country or in Europe. Astrud has been a great mentor to Canadian graduate students who went to MSU to spend their summer internship. We wish her the best and much success!

## NEW UCRSEA PUBLICATIONS

### Understanding Institutional Challenges for Urban Planning in Vientiane Capital, Lao PDR

Compiled by Daniel Hayward

The rate of urban population growth in Lao PDR is the highest in the Asia-Pacific region. This is resulting in accelerated social, economic and environmental change in cities of the nation. Yet it remains a starkly under-researched topic. Using the example of Vientiane Capital, this briefing note presents an overview of the stakeholders, legal and policy frameworks, and infrastructural systems involved in urban planning. To assist both researcher and development practitioner, it provides a frame to engage multi-stakeholder policy dialogue and project implementation, specific to the context of Lao PDR.

### Learning from Map Tha Phut for the development of Dawei Special Economic Zone

Jonathan Rhodes

Urban Climate Resilience in Southeast Asia (UCRSEA) partnership understands urbanization as a transformative process. Poverty, vulnerability, growth, and climate change impacts are influenced by ecology-human society interactions. With this focus, the partnership has identified Dawei, Myanmar as a secondary city with the potential to experience rapid growth through the creation of the Dawei Special Economic Zone (DSEZ). Development at this scale not only changes the economic linkages in the region; it has the potential to negatively transform society and the environment. For this reason, Mercy Corps and the Thailand Environment Institute (TEI) are working together to explore applicable environmental and social safeguards for Dawei with Map Tha Phut (MTP) as a frame of reference.

On the surface, environmental governance problems that led to a 2009 court case in MTP can be broadly described by the conflict between the socio-economic, political and environmental spheres. In exploring these issues, the Thailand Environment Institute (TEI) is examining the linkages between three influential stakeholder groups: regulatory bodies, businesses, and communities through NGOs, CSOs, and community leaders.

This report does not argue for or against the DSEZ, nor does it address the challenges present in Dawei. Instead, it is written with the assumption that the DSEZ might continue and offers recommendations to better improve the environmental governance mechanisms and policies as the process moves forward.

### Urban Climate Vulnerability in Cambodia: A Case Study in Koh Kong Province

*Kimheng Sa, Faculty of Development Studies, Royal University of Phnom Penh*

This study investigates an urban climate vulnerability in Cambodia by constructing an index to compare three different communes, Smach Meanchey, Daun Tong, and Steong Veng, located in the Khemarak Phoumin district, Koh Kong province. It is found that Daun Tong commune is the most vulnerable location among the three communes, followed by Steong Veng.

The full article was published in the *Economies Journal* and can also be accessed at <http://www.mdpi.com/2227-7099/5/4/41>.

## How to Access the Researchers Portal of the UCRSEA Website

The Researchers' Portal (<https://ucrsea.ca/resources/researchersportal/>) is a private section of the website which can be accessed only by UCRSEA partners and team members, collaborators, students and researchers associated with the project. It is a repository of project documents such as annual technical reports, unpublished research reports, workshop reports, PowerPoint presentations, templates and project media items. A discussion board is also available for the teams to start a conversation.



In order to gain access, please contact the Research Project Manager at [ucrsea@gmail.com](mailto:ucrsea@gmail.com). Once you have been registered as a user, please click on the link to the portal found on the top right hand corner of the page.

## UPCOMING EVENTS & ANNOUNCEMENTS

### Annual Workshop, 7-10 May, Yangon, Myanmar

The 4th UCRSEA Annual Workshop is scheduled for 7-10 May in Yangon, Myanmar. This year, the workshop will review progress to-date of project activities in the secondary cities, share research findings, experiences and insights and write-up papers based on research results.

More detailed agenda and programme will follow.

### Curriculum Development Training Workshop, 14-18 May, Chiang Mai, Thailand

As a follow-up to the 2016 Curriculum Development Workshop, a training workshop to introduce and teach the course syllabus on Urban Climate Change Resilience and Governance and train participants is being organized for May 14-18 in Chiang Mai, Thailand. The one-semester course (15 weeks) covers a range of concepts, theories, and issues relevant to and important for understanding the challenge of climate change in cities. It explores how cities are responding to climate change impacts and forecasts, and how urban scholars assess these responses. The varied and competing ideas of resilience as a response to climate change and their varied frameworks for assessing and developing resilience will also be taken up. University faculty members and researchers from UCRSEA partner countries and institutions will be invited. Prof. Amrita Daniere will take the lead in the course instruction.

### International and Regional Conferences, 2018-2019

Title/Link	Date	Location	Submission Deadline	Key themes
Reframing Urban Resilience Implementation: Aligning Sustainability and Resilience 11th International Forum on Urbanism Congress 2018 ( <a href="http://2018reframingurbanresilience.org/aim-and-framing/">http://2018reframingurbanresilience.org/aim-and-framing/</a> )	10-12 December 2018	Barcelona, Spain	30 May 2018	The need for a more integrated and inclusive approach to design and manage urban resilience, addressing climatic, environmental, socio-economic challenges while minimizing trade-offs among them, and maximizing synergies between resilience and sustainability
Urban Resilience Asia Pacific Conference <a href="https://www.urap2018.com">https://www.urap2018.com</a>	7-8 November 2018	University of New South Wales, Sydney, Australia	10 July 2018	The guiding question is how can vulnerable, low-income neighbourhoods in fast-growing cities in the Asia-Pacific region become more resilient to disasters and climate change?
Sustainability and Development Conference <a href="https://umsustdev.org/conference-themes/">https://umsustdev.org/conference-themes/</a>	9-11 November 2018	University of Michigan, Ann Arbor, Michigan, USA	15 July 2018	In collaboration with the journal <i>World Development</i> , this international conference on Sustainability and Development seeks to bring together a diverse and interdisciplinary constituency to engage with the best

Title/Link	Date	Location	Submission Deadline	Key themes
				approaches and means to implement the Sustainable Development Goals and assess progress towards them.
American Association of Geographers (AAG) annual meeting <a href="http://annualmeeting.aag.org">http://annualmeeting.aag.org</a>	3-7 April 2019	Washington, DC, USA	TBD	The latest in research and applications in geography, sustainability, and GIScience
Resilient Cities 2019 <a href="http://resilient-cities.iclei.org">http://resilient-cities.iclei.org</a>	27-29 June 2019	Bonn, Germany	TBD	The Annual Global Forum on Urban Resilience and Adaptation is the global platform for urban resilience and climate change adaptation, hosted every year in Bonn.
Asia Pacific Sociological Association Conference (APSA) <a href="https://apsasociology.wordpress.com">https://apsasociology.wordpress.com</a>	2019	TBD	TBD	The 14th Asia Pacific Sociological Association Conference will be in Hakone, Japan on 5-7 October 2018. Deadline was 30 April 2018.
Asia Research Institute, National University of Singapore <a href="https://ari.nus.edu.sg/Event">https://ari.nus.edu.sg/Event</a>		NUS, Singapore		
ICCCGW 2019: 21st International Conference on Climate Change and Global Warming <a href="https://waset.org/conference/2019/07/stockholm/ICCCGW">https://waset.org/conference/2019/07/stockholm/ICCCGW</a>	15-16 July 2019	Stockholm, Sweden	31 May 2018	Aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Climate Change and Global Warming. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Climate Change and Global Warming.



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