











International Workshop on Climate-Resilient Development in Southeast Asia

- Time: Friday and Saturday, July 26-27, 2024 (two full days 8:30-18:30)
- Venue: Tsai Auditorium, CGIS South Building, 1734 Cambridge St, Cambridge, MA 02138
- Registration is required for online participants to get the URL

Day 1 - Friday July 26, 2024

Time	Activity	Moderator
8:00-8:30	Registration	
8:30-9:00	 Welcome and Opening Remarks Michael B. McElroy, Gilbert Butler Professor of Environmental Studies, John A. Paulson School of Engineering & Applied Sciences and Department of Earth and Planetary Sciences; Chair, Harvard-China Project (HCP), Harvard University, Cambridge, MA, USA Francesca Biagini (virtual), Professor and Vice President, Ludwig-Maximilians-Universität (LMU), Munich, Germany 	Chris Nielsen (HCP, Harvard)
9:00-10:30 (30+15 min. each)	Climate-Resilient Development: Rhyming Transformation and Well-Being in the Anthropocene Ed Carr, Director and Senior Scientist, Stockholm Environment Institute - United States (SEI US), Somerville, MA, USA Dynamics of Coastal Areas - A Historical Review to Inform Future Development Strategies for the Mekong Delta Van P.D. Tri, Professor and Director, Research Institute for Climate Change (DRAGON-Mekong Institute), Can Tho University, Can Tho, Viet Nam	Emlyn Yang (HCP, Harvard; LMU Munich)
10:30-11:00	Group Photo / Coffee break / Poster session	
11:00-12:30 (3 talks + 18 Poster pitches)	Session on Climate Resilience for Health and Well-being Factors Contributing to Disaster Preparedness and Resilience in the Philippines Vincenzo Bollettino, Director, Program on Resilient Communities, Harvard Humanitarian Initiative (HHI), T.H. Chan School of Public Health, Harvard University, Boston, MA, USA	Emlyn Yang (HCP, Harvard; LMU Munich)

	Exploring the Role of Primary Health Care and Health Data in Addressing Climate-Related Health Risks Rina Suryani Oktari, Associate Professor and Vice Dean for Students, Alumni, and Partnership Affairs, Faculty of Medicine, Universitas Syiah Kuala, Banda Aceh, Indonesia Developing a Climate-Resilient Healthcare System Caleb J Dresser, Director, Healthcare Solutions, Harvard C-CHANGE, Harvard T.H. Chan School of Public Health; Emergency Medicine Physician, Beth Israel Deaconess Medical Center / Harvard Medical School, Harvard University, Boston, MA, USA	
	One minute pitch by each poster presenter (~16 posters) All poster presenters	
12:30-14:00	Lunch break / Poster session	
14:00-15:40 (15+5 min. each)	Session on Coastal and Flood Resilience Baha, Banjir, Flood: Different Names, Same Risks? Integrating Community Efforts in Disaster Governance in BIMP-EAGA Maria Carinnes P. Alejandria, Assistant Professor of Anthropology, Department of Sociology and Anthropology, Universiti Brunei Darussalam, Brunei Modeling the Long-term Social Resilience to Flood Impacts in the Mekong Basin Liang Emlyn Yang, Senior Researcher (Assistant Professor), Department of Geography, LMU Munich, Germany; Visiting Fellow, Harvard-China Project, Harvard University, Cambridge, MA, USA Social Dimensions of Coastal Advance as an Adaptation Strategy in Southeast Asian Cities Ven Paolo B. Valenzuela, Research Fellow, Asia Research Institute, National University of Singapore, Singapore Strategic Behaviors in Index Insurance and Levee Maintenance: Tipping Behaviors Under Sea Level Rise Woi Sok Oh, Postdoctoral Researcher, Department of Ecology and	Vincenzo Bollettino (HHI, Harvard)
15:40-16:00	Evaluating Flood Risk and Adaptation Options for a Coastal Megacity – The Case of Rain-Induced Nuisance Flooding in Ho Chi Minh City, Vietnam Leon Scheiber, PhD Student, Ludwig-Franzius-Institute, Leibniz University Hannover, Hanover, Germany Coffee break / Poster session	
		Chris Niolean
16:00-17:00 (15+5 min. each)	Session on Modeling and Measuring Climate Resilience Harvard Visualization Research and Teaching Laboratories Participatory Geospatial Agent-based Modeling on Simtables for Collective Intelligence, Situational Awareness and Community Resilience Stephen Guerin, Senior Researcher, Department of Earth and Planetary Sciences, Harvard University, Cambridge, MA, USA	Chris Nielsen (HCP, Harvard)

	Anticipatory AI for Climate Change Adaptation Muhammad Imran, Senior Scientist, Qatar Computing Research Institute, Hamad bin Khalifa University, Doha, Qatar Data-rich vs. Data-poor? Developing Regional Land-Use Models for Urban Resilience: Insights from the Mumbai Metropolitan Region Supriya Krishnan, PhD Student, Resilience Lab, Delft University of Technology, Delft, The Netherlands	
17:00-18:00 (15+5 min. each)	Leaky Plans: Gaps Between Representation and Reality in Vietnamese Regional Adaptation Planning Lizzie Yarina, Assistant Professor, School of Architecture, Northeastern University, Boston, MA, USA; Linh Trinh, Graduate Student, Department of Urban Studies and Planning, Massachusetts Institute of Technology, Cambridge, MA, USA Vulnerability Reduction for Climate Justice: Towards Climate-resilient and Equitable Development in Southeast Asia Lisa Hiwasaki, Assistant Professor of International Development, Department of Marine Affairs, University of Rhode Island, Kingston, RI, USA Divided We Drown: Segregation and Climate Resilience in Metro Manila Eunsoo Hyun, PhD Student, A. Alfred Taubman College of Architecture and Urban Planning, University of Michigan, Ann Arbor, MI, USA	Chris Nielsen (HCP, Harvard)
18:00	Reception and dinner at the venue (Lobby outside the Tsai Auditorium, CGIS South Building, 1734 Cambridge St, Cambridge, MA 02138)	

Day 2 – Saturday July 27, 2024

Time	Activity	Moderator
8:30-10:10	Session on Climate Resilience in Energy and Food Systems	Emlyn Yang
(15+5 min.		(HCP, Harvard;
each)	The Energy Sector in Vietnam: Multidimensional Challenges under Economic	LMU Munich)
	and Climate Pressures, and Prospects for Private Sector Participation	
	Le Viet Phu, Professor, Fulbright School of Public Policy and Management,	
	Fulbright University Viet Nam, Ho Chi Minh City, Viet Nam	
	Envisioning Slow-onset Climate Change Impact and Human Mobility in Southeast Asia	
	Saut Sagala, Associate Professor, School of Architecture, Planning and Policy	
	Development, Institut Teknologi Bandung, Bandung, Indonesia	
	Indigenous Epistemologies for Sustainable Futures: Insights from	
	Indonesia's Suku Anak Dalam on Climate Change Resilience, Food	
	Sovereignty, and Health Equity	
	Sadar Ginting, PhD Student, Environmental Science, Chiang Mai University,	
	Chiang Mai, Thailand; Lecturer, Institut Kesehatan Sumatera Utara, Kota	
	Medan, North Sumatra, Indonesia	

	Can Rice Farmers Become Climate Farmers? Platform Agriculture in the Vietnamese Mekong Delta Darius Sadighi, PhD Student, Department of Anthropology, Princeton University, Princeton, NJ, USA Brewing robustness: Traversing climate pressures and building resilience in the Philippine coffee supply chain Ivee Fuerzas, PhD Student, Division of Environment and Sustainability, The Hong Kong University of Science and Technology, Hong Kong	
10:10-10:30	Coffee break / Poster session	
10:30-12:30 (15+5 min. each)	Urban Heat Adaptation Jack Spengler, Akira Yamaguchi Professor of Environmental Health and Human Habitation, T.H. Chan School of Public Health, Harvard University; Ernani Choma, Research Associate, Department of Environmental Health, T.H. Chan School of Public Health, Harvard University; Ernani Choma, Research Associate, Department of Environmental Health, T.H. Chan School of Public Health, Harvard University, Boston, MA, USA (Pending) Community-based Socio-enterprise as Institutional Innovation for Community Self-governance of Climate Change Resilience Thi Phuoc Lai Nguyen, Professor, Department of Planning Management and Innovation, Asian Institute of Technology, Pathum Thani, Thailand Building Resilience through Collaborative Community Mapping: Insights from CoPinThailand Aditya Barve, Research Scientist, Urban Risk Lab, Massachusetts Institute of Technology, Cambridge, MA, USA; Pimpakarn Rattanathumawat, Associate, Urban Risk Lab, Massachusetts Institute of Technology, Cambridge, MA, USA Urban Resilience in the Aftermath of Tropical Storm Washi in the Philippines: The Role of Autonomous Household Responses Karl Sam M. Maquiling, Supervisory Environmental Management Specialist, City Government of Iligan, Northern Mindanao; Associate Member, National Research Council of the Philippines, Cagayan De Oro City, Northern Mindanao, Philippines Assessing Flood Exposure Disparities Across Urban Morphologies in Metro Manila and Hanoi Olabisi S. Obaitor, Postdoctoral Researcher, Department of Geography, Ludwig-Maximilians-Universität (LMU), Munich, Germany	Chris Nielsen (HCP, Harvard)
12:30-14:00	Lunch break / Poster session	
14:00-15:40 (15+5 min. each)	Session on Resilience Policy and Practices What It Will Take to Bend the Carbon Curve Fast Enough, and What to Do If We Can't David Dapice, Professor Emeritus of Economics, Tufts University, Medford, MA, USA; Senior Economist, Rajawali Foundation Institute for Asia, Harvard Kennedy School, Harvard University, Cambridge, MA, USA	Ernani Choma (HSPH, HCP, Harvard)

	A New Paradigm for Early Warning and Anticipatory Action for Water- related Natural Disasters in Southeast Asia Brian Eyler, Director, Energy, Water, Sustainability Program; Director, Southeast Asia Program, The Stimson Center, Washington, DC, USA Capacity for Change: How Adaptation Practitioners Are Shaping Climate- Resilient Communities and Infrastructure in Southeast Asia Shail Joshi, Senior Program Officer for Nature-based Adaptation Solutions, World Wildlife Fund, Washington, DC-Baltimore, MD, USA Climate Change as Policy Agenda: Evidence from Indonesia Aichiro Suryo Prabowo, Postdoctoral Researcher, Southeast Asia Program, Einaudi Center for International Studies, Cornell University, Ithaca, NY, USA	
15:40-16:00	Coffee break / Poster session	
16:00-17:30	 Panel Discussion of Key Research Questions and Outlooks Le Viet Phu, Professor, Fulbright School of Public Policy and Management, Fulbright University Viet Nam, Ho Chi Minh City, Viet Nam Michael B. McElroy, Gilbert Butler Professor of Environmental Studies, John A. Paulson School of Engineering & Applied Sciences and Department of Earth and Planetary Sciences, Harvard University, Cambridge, MA, USA Maria Carinnes P. Alejandria, Assistant Professor of Anthropology, Department of Sociology and Anthropology, Universiti Brunei Darussalam, Brunei Vincenzo Bollettino, Director, Program on Resilient Communities, Harvard Humanitarian Initiative (HHI), T.H. Chan School of Public Health, Harvard University, Boston, MA, USA 	Emlyn Yang (HCP, Harvard)
17:30-18:00	Outlook with Following Activities and Discussions	Chris Nielsen (HCP, Harvard)

Topics of poster presentations

1. Nature Based Echo-hydraulic Aquaforest Technology for Coastal Resilience and Sea Level Rise Climate-Induced Adaptation

Oladokun Sulaiman Olanrewaju, Professor, Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research (AWI), Bremerhaven, Germany

2. Local Perception of Weather Change, Place-based Adaptation and Migration Intention: A Study on Khasia and Tripura Communities in Bangladesh

Mufti Nadimul Quamar Ahmed, PhD Student, Utah State University, UT, USA

3. Addressing Households' Awareness on Flood Occurrences in Ho Chi Minh City

Do Ly Hoai Tan, Researcher, The Southern Institute of Social Sciences, Ho Chi Minh City, Viet Nam

4. Research on Solutions and Technologies of Distributed Water Storage for Fruit Tree Regions in the Mekong Delta

Tran Thai Hung, Deputy Director of the Research Center for Irrigation and Water Supply; Senior Researcher, Southern Institute of Water Resources Research, Ho Chi Minh City, Viet Nam

5. City-scale Digital Twins for Urban Resilience: A Systematic Review

Masahiko Haraguchi, Postdoctoral Researcher, Department of Global Health and Population, T.H. Can School of Public Health, Harvard University, Boston, MA, USA

6. Simulating Community Resilience to Flood Impacts in the Upper Mekong Basin Using an Empirical Agentbased Model

Wenhan Feng, PhD student, Department of Geography, Ludwig-Maximilians-Universität (LMU), Munich, Germany

7. Small-scale Heat Health Risk Assessment and Nature-based Solutions

Jinglu Song, Associate Professor, Department of Urban Planning and Design, Xi'an Jiaotong-Liverpool University, Suzhou, Jiangsu, P. R. China

8. The Political Ecology of Exclusion and Power Dynamics in Climate Change Adaptation Practices of Diaspora: A Case Study of Chittagong, Bangladesh

Naznin Nahar Sultana, PhD student, Department of Geography and Spatial Sciences, University of Delaware, Newark, DE, USA

- 9. Perceived Challenges to Responding to Climate Change Impacts in the Vietnamese Health Sector
 Samantha Esposito, Project Manager, Global Health, Brigham and Women's Hospital, Boston, MA, USA
- 10. A Comprehensive Approach to Building Resilient Communities: Insights from Southeast Asia's Hydroclimatological Extremes

Md Humayain Kabir, Researcher and PhD Student, Department for Knowledge and Communication Management, Danube University Krems/University of Graz, Austria

11. Foster Climate-resilient Buildings in East and Southeast Asia: Understanding the Spatial and Life Cycle
Resource Use and Carbon Emissions of Buildings for Climate Risk Assessment and Policy Recommendations
Liang Dong, Assistant Professor, School of Energy and Environment, City University of Hong Kong, Hong
Kong SAR, P. R. China

12. How are Indigenous Households in Batanes, Philippines Navigating Climate-resilient Housing amid Multi-hazard Impacts?

Arvin Hadlos, PhD Student, School of Engineering, The University of Sydney, Sydney, Australia

13. Towards Extreme Heat Resilience: Exploring the Intersectional Vulnerabilities Mental and Social Wellbeing Impacts in Southeast Asia's Informal Settlements

Sharon Feliza Ann P. Macagba, PhD Student, Division of Environment and Sustainability, The Hong Kong University of Science and Technology, Hong Kong

14. The Yangtze River Basin Dilemma: Flooding, Mega-Infrastructure, and an Opportunity for a Global Climate-Adaptive Future

Angelina Yihan Zhang, Graduate Student, Graduate School of Design, Harvard University, Cambridge, MA, USA

15. [Pending] Adaptation Practices to Climate Change: The Role of Indigenous Knowledge and Adaptation Practices to Ethnic Minority Farmers in the Northern Part of Vietnam

Nguyen The Manh, Senior Researcher, Center for International Forestry Research and World Agroforestry (CIFOR – ICRAF), Ha Noi, Viet Nam, and Asian Institute of Technology, Pathum Thani, Thailand

16. [Pending] Mapping Urban-rural Divide of Climatic Disaster Vulnerability and Implications for Community Resilience Building in China

Yuheng Li, Professor, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, P. R. China

Information for arrival in Boston and Cambridge

Dear Climate Resilience Workshop Participant:

We look forward to welcoming you to Cambridge! We put together some logistics for your trip, to make navigating around the area as seamless as possible.

WORKSHOP ADDRESS

The workshop, which will begin promptly at 8:30am each morning (Friday starting at 8am for on-site registration), will take place at <u>Tsai Auditorium</u>, <u>CGIS South</u>, <u>1730 Cambridge Street</u>, <u>Cambridge MA 02138</u>. Once you enter the main doors of CGIS South, you will see a stairwell directly on your lefthand side. Proceed down the stairs and Tsai Auditorium will be straight ahead.

IMPORTANT WORKSHOP DEADLINES

- 1) Poster Files for those presenting posters, all poster files should be size 36"x48" and emailed as hi-resolution PDFs to Prof. Liang Emlyn Yang (lyang@seas.harvard.edu) by July 15. If you do not send your poster file by this date, we unfortunately will be unable to print it; you must therefore print it yourself, and we will simply tape it to the wall.
- 2) **Slideshow Files** for those presenting slides, all PPT files should be sent to Prof. Yang or directly uploaded to this <u>Dropbox link</u> by **July 24**. If you have any questions, contact Prof. Yang.

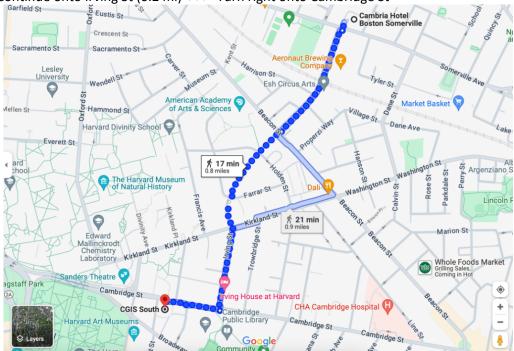
ACCOMODATIONS

For those whose accommodation were booked by us, hotel rooms were reserved at the <u>Cambria Hotel</u> Boston Sommerville from July 25-28. The address is 515 Somerville Ave, Somerville MA 02143.

Navigating from the hotel to the workshop

The walk from the hotel to the workshop is roughly 15 minutes. To navigate from the hotel to the workshop, please follow these walking directions:

- Head southwest toward Somerville Ave (69 ft) >>> Turn right onto Somerville Ave (16 ft)
- Turn left onto Park St (0.2 mi) >>> Continue onto Scott St (0.2 mi)
- Continue onto Irving St (0.2 mi) >>> Turn right onto Cambridge St



Navigating from Boston Logan Airport to the Hotel

- Logan Airport is six miles from Cambria Hotel. It takes about 25-40 minutes to get there by car/taxi/rideshare, depending on traffic, and it usually costs \$30-\$40.
- Cambria Hotel is just under a mile away from the *Porter Square* stop on the MBTA Red Line from Boston or the *Gilman Square* on the MBTA Green Line. One recommended routine is that you can take the free *Silver Line 1* from Logan Airport to the *South Station* at Boston, then transfer to the subway system to your destinations.
- The closest subway station to the venue is *Harvard Square* on the Red Line. However, unfortunately the Red Line is currently out of service at the Harvard Square due to constructions. You may prepare your transportation by bus, taxi, RideApp or others.

SOMMERVILLE DINING OPTIONS

Looking for cuisine near your hotel? Here are a few options:

- Josephine Pizza
 Located right off the lobby of the hotel, this restaurant offers pizza and other Italian classics https://www.josephinepizza.com
- Forge Baking Company
 Local favorite bakery with buttery croissants, homemade sandwiches, and delicious coffee from
 Intelligentsia just a quick five minute walk from the hotel doors. www.forgebakingco.com
- Other dining options, as recommended by the Cambria: https://cambriasomerville.com/our-somerville-neighborhood/where-to-eat-in-cambridge-somerville/

HARVARD DINING OPTIONS

For those looking for food options in Harvard Square, here are some recommendations:

- Henrietta's Table \$\$\$
 The Charles Hotel's farmhouse-chic eatery specializes in locally sourced food, plus brunch.
 http://www.henriettastable.com
- Russell House Tavern \$
 Upscale New American fare, craft cocktails & microbrews are on offer at this chic gathering spot. https://russellhousecambridge.com
- Harvest \$\$\$\$
 Venerable, welcoming mainstay for contemporary New England seasonal dishes & a garden courtyard. https://www.harvestcambridge.com
- The Hourly Oyster House \$\$
 Cozy but airy spot serving seafood, from raw bar options to lobsters, plus eclectic wines & spirits. https://thehourlycambridge.com/menus/
- Zoe's Chinese Restaurant \$
 Traditional Chinese fare, including vegetarian options, served in a casual setting.

QUESTIONS?

Workshop queries can be directed to Prof. Liang Emlyn Yang, lyang@seas.harvard.edu. We look forward to seeing you on July 26!