

## **Chia-Chi Lee (李家齊)**

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### **EDUCATION**

- 2005/09 – 2011/11 Ph.D. Graduate Inst. of Building and Planning, National Taiwan Univ., Taiwan
- 1999/09 – 2001/10 M.S. Depart. of Civil Engineering, Hydraulic Engineering Division, National Taiwan Univ., Taiwan
- 1995/09 – 1999/06 B.A. Depart. of Hydraulic and Ocean Engineering, National Cheng Kung Univ., Taiwan

### **EMPLOYMENT**

- 2021/03 – present Postdoctoral Researcher, RCEC, Academia Sinica, Taiwan
- 2018/08 – present Director, Water for SOciety (WSO), Taiwan
- 2018/04 – 2018/09 Postdoctoral Researcher, Center for Weather Climate and Disaster Research, National Taiwan Univ., Taiwan
- 2015/03 – 2018/03 Senior Engineer, Sinotech Engineering Consultants Group, Taiwan
- 2012/11 – 2014/12 Postdoctoral Researcher, Center for Environmental Studies, National Central Univ., Taiwan
- 2011/11 – 2012/10 Postdoctoral Researcher, Department of Bioenvironmental Systems Engineering, National Taiwan Univ., Taiwan

### **PROFESSIONAL EXPERIENCES**

Chia-Chi Lee is a researcher, passionate about water environment issues. He has been nurtured by both natural and social sciences, mainly engaged in water resources planning, disaster research, and cross-disciplinary/sectoral research. After receiving a Ph.D. degree in disaster management in 2011, Chia-Chi worked as a postdoctoral researcher at the National Taiwan University (NTU) and National Central University, carrying out the TaiCCAT (Taiwan Integrated Research Program on Climate Change Adaptation Technology), one of Taiwan's three major climate change integration research programs at that time, as funded by the Ministry of Science and Technology, to assist in planning cross-disciplinary/sectoral research directions and integration methodology. The final outcomes of TaiCCAT included scientific reports, road maps, adaptation knowledge platforms, indicator systems (evaluation tools), demonstration projects, and international networking.

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In 2015, Chia-Chi Lee transferred to the Sinotech Engineering Consultants Group, executing the Management Project of Climate Change Impacts and Adaptation on Water Environment supported by the Water Resources Agency (WRA). He also contributed to flood warning and mitigation projects of the WRA and local governments. Moreover, he assisted the Institute of Transportation (a subsidiary of the Ministry of Transportation and Communications) and the Taiwan Power Company to conduct risk assessments of major highway and railway systems and energy supply facilities respectively under climate change. He was also involved in knowledge management and international networking, as well as research related to water cultural landscapes.

In 2018 he served at the Center for Weather Climate and Disaster Research of NTU and focused on disaster management at the community level, sharing the concept of autonomous disaster prevention with the residents and empowering them to implement practical adaptation strategies. In August of this year, he founded the NGO, Water for SOciety (WSO), serving as a president. The WSO aims to promote and improve the social care and social development of Taiwan and the international water environment. Since March 2021, he has made up his mind to devote himself to academic research and worked at the Research Center for Environmental Changes, Academia Sinica, assisting in the implementation of TCFD-aligned research projects. At the same time, he has written several research papers in preparation for submission to well-known international journals.

## RESEARCH INTEREST

My research interests include environmental planning and governance, water and society, interdisciplinary/transdisciplinary/cross-sectoral research, disaster research, and climate change. No matter what research approaches are adopted, the research topics are generally related to social-ecological systems. It is expected to explore the diverse social realities and make corresponding suggestions.

## RESEARCH HIGHLIGHTS

1. **Feasibility of assessing the social impact of water environment is discussed**, and the research results show that (1) the social impact assessment (SIA) for the water environment is indeed necessary; (2) Taiwan's water environment professionals need to improve from their current lack of understanding of SIA; (3) it is difficult to implement the water environment SIA; (4) it is necessary for SIA to clarify and integrate the authorities and responsibilities of relevant government departments; (5) the professionals believe the myth of quantification of SIA; and (6) water environment SIA must be integrated with the existing integrated water resources management (IWRM).
2. **Taiwan's historical climate change research orientation is reviewed**. This study analyses nearly 6,000 government-funded climate change research projects in Taiwan from 1993 to 2020 based on data in Government Research Bulletin, supplemented by exploring Taiwan's science and technology policies to obtain a constructive research discourse. While the Taiwan

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government has continued to actively promote climate change research following the IPCC, it suffers from uneven development of research fields, lack of social and interdisciplinary/transdisciplinary research, and a gap between scientific research and decision-making.

3. **The role of women in community-based disaster risk management (CBDRM) in Taiwan is examined.** Based on the researchers' years of experience in CBDRM, combined with key informant interviews, this paper takes the examines disaster resistant communities (DRCs) promoted by Taipei City and New Taipei City and finds the following: (1) superficial and stereotyped institutional design; (2) female self-deprecation; (3) women's disproportional responsibility or domestic labor affects their participation in CBDRM; (4) women's abilities are recognized and respected; (5) the personal traits of local administrators and their supporters determine the DRC's gender awareness; and (6) gender issues in CBDRM are a microcosm of those in society as a whole.
4. **Recommendations for the scientific community to contribute to corporate climate-related financial disclosure are made.** This study draws on interviews from representatives of more than a dozen related corporations and institutions in Taiwan, including government agencies, private firms, research units, and industry associations, to understand and summarize their experience and expectations for the research community's contributions to TCFD alignment. Based on the interview findings, the paper then provides suggestions for improvement by the research community, policy makers, and decision makers, helping to effectively bridge the gap between daily research work and external expectations for the research results.

#### **REPRESENTATIVE PUBLICATIONS** (\*: corresponding author)

1. **Lee, Chia-Chi**, Kuo, Shih-Yun, Hsu, Huang-Hsiung, Mo, Tung-Li, Chang, En-Yu, Huang, Kuan-Chun, How does the research community contribute to TCFD-aligned disclosures? The gaps between reality and ideals, *Corporate Social Responsibility and Environmental Management* (submitting)
2. Elusma, Manassé, Tung, Ching-pin, **Lee, Chia-Chi**, Jou, Sue-ching, Agricultural drought risk assessment in the Caribbean region: The case of HAITI, *International Journal of Disaster Risk Reduction* (under review)
3. Huang, Kuo-Ching, Chan, Shih-Liang, Ke, Jing-Ting, **Lee, Chia-Chi**, Discussion on the co-benefit assessment framework of climate change adaptation: Agricultural land-use adaptation as an example, *Journal of City and Planning* (in Chinese) (major revision completed and resubmitted)
4. **Lee, Chia-Chi**, Huang, Kuo-Ching, Kuo, Shih-Yun, Lin, Yong-Jun, Ke, Kai-Yuan, Pan, Tsung-Yi, Tai, Li-Li, Cheng, Chien-Ke, Shih, Yu-Li, Lai, Han-Ting, Ke, Bing-Heng (2022) Gender matters: The role of women in community-based disaster risk management in Taiwan, *International*

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*Journal of Disaster Risk Reduction*, 77(11): 103046, <https://doi.org/10.1016/j.ijdrr.2022.103046>

5. **Lee, Chia-Chi**, Kuo, Shih-Yun, Chiu, Ya-Hsuan, Chang, En-Yu, Chen, Liang-Chun, Hung, Hung-Chih, Chang, Ting-Wei, Drought perception under climate change: The differences between farmers and the public in Taiwan, *Land Use Policy* (submitting)
6. **Lee, Chia-Chi**, Huang, Kuo-Ching, Kuo, Shih-Yun, Tung, Ching-Pin, Liu, Tzu-Ming (2022) Climate change research in Taiwan: Beyond following the mainstream, *Environmental Hazards: Human and Policy Dimensions*, <https://doi.org/10.1080/17477891.2022.2074954>
7. **Lee, Chia-Chi**, Huang, Kuo-Ching, Kuo, Shih-Yun, Cheng, Chien-Ke, Tung, Ching-Pin, Liu, Tzu-Ming (2021) Development of a social impact assessment for the water environment: a professional perspective, *Water*, 13(23): 3355, <https://doi.org/10.3390/w13233355>
8. Chang, Chiung-Wen, Hsiao, Wei-Yuan, Chang, Yi-Cheng, Hsieh, Chi-Liang, **Lee, Chia-Chi** (2016) Vulnerability and risk maps for railway and highway systems, *Transportation Planning Journal*, 45(4): 251-276 (in Chinese)
9. **Lee, Chia-Chi\***, Lin, Po-Tsung, Tai, Hung-Wen, Ho, Mei-Hua, Hong, Shao-Pin, Huang, Hsuan-Liang (2016) The impact of climate change and vulnerability Assessment of the Taiwan Power Company's power supply facilities, *Monthly Journal of Taipower's Engineering*, 809: 51-65 (in Chinese)
10. Lu, Yu-Xun, Lin, Yu, Chen, Guo-Rong, **Lee, Chia-Chi\***, Fu, Chung-Te (2015) Value-Added cloud services with open data during typhoon floods, *Engineering*, 85(5): 12-19 (in Chinese)
11. **Lee, Chia-Chi\***, Tung, Ching-Pin, Liu, Tzu-Ming, Tsao, Jung-Hsuan, Liu, Gin-Rong, Chiang, Yi-Chang, Huang, Kuo-Ching (2015) Towards an innovative interdisciplinary method for vulnerability assessments: the case of Taiwan, *Journal of Water and Climate Change*, 6(3): 501-517, <https://doi.org/10.2166/wcc.2014.256>
12. **Lee, Chia-Chi\***, Chen, Liang-Chun (2012) Flood-project stakeholders: tentative framework for stakeholder identification, *Journal of City and Planning*, 39(2): 121-155, <https://doi.org/10.6128/CP.39.2.121> (in Chinese)
13. **Lee, Chia-Chi\***, Chen, Liang-Chun (2011) Who are the resident stakeholders in a flood project? A spatial analysis of resident stakeholders, *Natural Hazards*, 59(1): 107-128, <https://doi.org/10.1007/s11069-011-9742-7>