

Weitong Long

Wageningen University & Research
Environmental Economics and Natural Resources (ENR) group
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Quantitative researcher with 6+ years of experience in integrated environmental-economic modelling and environmental impact assessment. Extensive experience applying quantitative modelling approaches to explore mitigation options towards sustainable food systems. Dissertation on assessing the impacts of food system transformation options (i.e., supply-side and demand-side measures, and environmental policies) at the macro level (i.e. regional, national, and global levels) using the integrated environmental-economic modelling approach based on the general equilibrium framework. 9 scientific papers have been published in peer-reviewed journals. One first-authored paper published in **Environmental Science & Technology (JCR: Q1; IF= 11.4)** and one co-authored paper published in **Nature Food (JCR: Q1; IF=23.2)**.

EDUCATION

PhD Candidate of Economics in Environmental and Natural Resource Economics Expected 09/2025
Wageningen University & Research *Wageningen, The Netherlands*

- Dissertation: Integrated environmental-economic modelling of sustainable food systems in China
- Committee: Xueqin Zhu, Hans-Peter Weikard, Oene Oenema, Yong Hou

Visiting PhD Student 10/2024-01/2025
University of California, Davis *Davis, California, United States*

- Supervisor: Luis M. Peña-Lévano

Visiting PhD Student 09/2020-09/2021
China Agricultural University *Beijing, China*

- Supervisor: Yong Hou

Master of Agriculture in Plant Nutrition 09/2018-06/2020
China Agricultural University *Beijing, China*

- Dissertation: Nitrogen footprint of China's pig production and feeding mitigation measures
- Committee: Yong Hou

Bachelor of Agriculture in Agricultural Resources and Environment 09/2014-06/2018
Hunan Agricultural University *Changsha, China*

- Dual Bachelor of Arts in English

RESEARCH INTERESTS

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- Integrated environmental-economic modelling
 - Sustainable food provision and food-land-water-climate nexus
 - Environmental impact assessment of the food chain

KEY PUBLICATIONS

Citations (Google Scholar: 06/07/2024): total=152; h-index=7; i-10=6

- Long, W., Wang, H., Hou, Y., Chadwick, D., Ma, Y., Cui, Z., & Zhang, F. (2021). [Mitigation of multiple environmental footprints for China's pig production using different land use strategies](#). *Environmental Science & Technology (JCR: Q1; IF=11.4)*, 55(8), 4440-4451.

- Wang, H., **Long, W.**, Chadwick, D., Velthof, G. L., Oenema, O., Ma, W., ... & Zhang, F. (2020). [Can dietary manipulations improve the productivity of pigs with lower environmental and economic cost? A global meta-analysis](#). *Agriculture, Ecosystems & Environment (JCR: Q1; IF=6.6)*, 289, 106748.
- Wang, H., **Long, W.**, Chadwick, D., Zhang, X., Zhang, S., Piao, X., & Hou, Y. (2022). [Dietary acidifiers as an alternative to antibiotics for promoting pig growth performance: A systematic review and meta-analysis](#). *Animal Feed Science and Technology (JCR: Q1; IF=3.2)*, 115320.
- Tong, B., Zhang, L., Hou, Y., Oenema, O., **Long, W.**, Velthof, G. L., ... & Zhang, F. (2022). [Lower pork consumption and technological change in feed production can reduce the pork supply chain environmental footprint in China](#). *Nature Food (JCR: Q1; IF= 23.2)*, 1-10.

WORK PAPERS

- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (*Under Review at **Sustainable Production and Consumption**, JCR: Q1; IF=12.1*). How can sustainable food production and consumption in China be achieved?
- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (***Job Market Paper**, Submitted to a Peer-reviewed Journal*). The asymmetric impacts of feeding China's monogastric livestock with food waste on food security and environment sustainability.

WORKING IN PROGRESS

- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (*In Preparation*). Food system transformation is key to achieving food security and environmental sustainability in China.
- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (*In Preparation*). Exploring transformation options in the food-land-water-climate nexus: towards achieving multiple Sustainable Development Goals (SDGs) in China.

TEACHING EXPERIENCE

Teaching Assistant, Wageningen University & Research

- ENR32806: Economic modelling of sustainability challenges (with Xueqin Zhu & Jack Peerlings), Master level, 6 ECTS. Spring semester 2023 & 2024
- ENR22806: Principles of climate change economics and policy (with Xueqin Zhu & Ina Möller), Master level, 6 ECTS. Winter semester 2022

MENTORING EXPERIENCE

Co-supervisor of Master Thesis, Wageningen University & Research

- Master thesis: Kehan Qiu (with Rolf Groeneveld) 12/2023-06/2024
- Master thesis: Huangshu Zhao (with Hans-Peter Weikard) 03/2023-09/2023
- Master thesis: Jia Zhou (with Xueqin Zhu) 03/2022-09/2022

Chair of Master Thesis Ring, Wageningen University & Research

- Organised weekly meetings for Master students to discuss their written thesis 01/2022-12/2022

SERVICE AND MEMBERSHIP

Conference Parallel Session Chair

- 29th Conference of European Association of Environmental and Resource Economists (EAERE) 07/2024

Conference Abstract Reviewer

- 2024 Agricultural and Applied Economics Association (AAEA) Annual Meeting 02/2024

Conference Organising Committee

- 7th Sino-Dutch Agriculture Green Development (AGD) Symposium 02/2023

Professional Association Membership

- American Economic Association (AEA)
- Agricultural & Applied Economics Association (AAEA)
- Association of Environmental and Resource Economists (AERE)
- European Economic Association (EEA)
- European Association of Agricultural Economists (EAAE)
- European Association of Environmental and Resource Economists (EAERE)
- International Association of Agricultural Economists (IAAE)
- International Food And Agribusiness Management Association (IFAMA)
- International Society for Ecological Economics (ISEE)
- International Society for Industrial Ecology (ISIE)

CONFERENCE PRESENTATIONS

- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (07/2024). Quantifying the environmental and economic impacts of feeding China's monogastric livestock with food waste: a general equilibrium approach. Oral presentation delivered at the 29th Annual Conference of EAERE, Leuven, Belgium.
- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (06/2024). Quantifying the environmental and economic impacts of feeding China's monogastric livestock with food waste: a general equilibrium approach. Oral presentation delivered at the III Economy for The Common Good International Conference (ECGIC), Leeuwarden, Fryslân, The Netherlands.
- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (05/2024). The asymmetric impacts of feeding China's monogastric livestock with food waste on food security and environment sustainability. Oral presentation delivered at the 9th Sino-Dutch AGD Symposium, Wageningen University & Research, Wageningen, The Netherlands.
- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (08/2023). Integrated Environmental-economic modelling of sustainable food systems in China. Poster presentation delivered at the XVII EAAE Congress, Rennes, France.
- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (07/2023). Integrated Environmental-economic modelling of sustainable food systems in China. Oral presentation delivered at the EAERE Summer School, University of Graz, Graz, Austria.
- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (02/2023). Environmental trade-offs of dietary structure change can be alleviated by cleaner technology and emission restriction. Oral presentation delivered at the 7th Sino-Dutch AGD Symposium, Wageningen University & Research, Wageningen, The Netherlands.
- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (10/2022). An environmental-economic framework for assessing the impacts of adjustments in crop and livestock systems. Oral presentation delivered at the Wageningen School of Social Sciences (WASS) PhD Day, Wageningen University & Research, Wageningen, The Netherlands.

SEMINAR TALKS

- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (04/2024). Quantifying the environmental and economic impacts of upcycling food waste in China's monogastric livestock production: a general equilibrium approach. Oral presentation delivered at the EconMonday Weekly Lunch seminar, Wageningen University & Research, Wageningen, The Netherlands.
- **(Invited) Long, W.** (12/2023). Food system environmental policy analysis and method application. Oral presentation delivered at the Plant Nutrition Weekly Seminar, China Agricultural University, Beijing, China (Online).
- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (06/2023). Exploring options for sustainable food systems in China: An integrated environmental-economic modelling approach. Oral presentation

delivered at the EconMonday Weekly Lunch seminar, Wageningen University & Research, Wageningen, The Netherlands.

- **Long, W.**, Zhu, X., Weikard, H.P., Oenema, O., Hou, Y. (11/2022). The global environmental consequences of adjustments in the food systems in China. Oral presentation delivered at the EconMonday Weekly Lunch seminar, Wageningen University & Research, Wageningen, The Netherlands.

TRAINING COURSES

EAERE Summer School in Resource and Environmental Economics	07/2023
<i>University of Graz</i>	<i>Graz, Austria</i>

- Transnational and Cascading Climate Risks and Adaptation

Dynamic General Equilibrium Modelling Course

<i>Victoria University & University of International Business and Economics</i>	07/2021
	<i>Beijing, China</i>

- CHINAGEM, A Monash-Styled Dynamic Computable General Equilibrium Model of China

GRANTS AND AWARDS

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| • Junior Researcher Grant from Wageningen School of Social Sciences (WASS) (4000 €) | 07/2024 |
| • Travel Grant from the LEB Foundation to participate in the XVII EAAE Congress (750 €) | 06/2023 |
| • Excellent Master's Degree Thesis of Chinese Society (Awarded to the 0.1% best master thesis in the research field of Plant Nutrition and Fertilizer Science) | 08/2020 |
| • The First-Class Master Academic Scholarship of China Agricultural University (Top 1%) | 10/2019 |
| • The First Prize of China Agricultural University English Speech Contest (Top 1%) | 11/2018 |
| • The Third Prize of the National English Contest for Chinese College Students (Top 3%) | 06/2015 |

SKILLS

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- **Programming:** General Algebraic Modeling System (GAMS, advanced, e.g. model establishment), General Equilibrium Modelling PACKage (GEMPACK, intermediate), R (intermediate).
 - **Modelling:** Applied general equilibrium (AGE) modelling, life cycle assessment (LCA), input-output (I-O) analysis, material flow analysis (MFA), and meta-analysis.
 - **Software:** ArcGIS, Simapro, Latex, and Microsoft Office.
 - **Languages:** Native to Mandarin Chinese. Strong reading, writing, and speaking competencies in English.

REFERENCES

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- Associate Prof. Dr. [Xueqin Zhu](#), Wageningen University, xueqin.zhu@wur.nl
 - Associate Prof. Dr. [Hans-Peter Weikard](#), Wageningen University, hans-peter.weikard@wur.nl
 - Prof. Dr. [Oene Oenema](#), Wageningen Environmental Research, oene.oenema@wur.nl
 - Prof. Dr. [Yong Hou](#), China Agricultural University, yonghou@cau.edu.cn