

Xiaowei Tong  
Ekstern forsker  
Geography 2  
**Postal address:**  
Øster Voldgade 10  
1350  
København K  
**Email:** xit@ign.ku.dk  
**Phone:** +4535332725  
**Web address:** <https://ign.ku.dk/forskning/geografi/>



## Short presentation

Xiaowei Tong received her PhD from the University of Chinese Academy of Sciences in 2017. She is currently supported by an EU-funded Marie Skłodowska-Curie post doc grant at the University of Copenhagen. She has a strong background in ecology and applied remote sensing with special focus on the karst areas in Southern China. Her two first author publications in top ranking high impact journals (Nature Sustainability and Nature Communications) set state-of-the art on current research of vegetation cover/greenness increase in the context of conservation projects.

## Employment

**Ekstern forsker**  
Geography 2  
København K, Denmark  
15 Feb 2022 → nu

## Research outputs

### **Asymmetric response of primary productivity to precipitation anomalies in Southwest China**

Dong, G., Fan, L., Fensholt, Rasmus, Frappart, F., Ciais, P., Xiao, X., Sitch, S., Xing, Z., Yu, L., Zhou, Z., Ma, M., Tong, Xiaowei, Xiao, Q. & Wigneron, J., 2023, In: Agricultural and Forest Meteorology. 331, 12 p., 109350.

### **Beyond tree cover: Characterizing southern China's forests using deep learning**

Li, Q., Yue, Y., Liu, Siyu, Brandt, Martin Stefan, Chen, Z., Tong, Xiaowei, Wang, K., Chang, J. & Fensholt, Rasmus, 2023, In: Remote Sensing in Ecology and Conservation. 9, 1, p. 17-32

### **Recent decrease of the impact of tropical temperature on the carbon cycle linked to increased precipitation**

Zhang, Wenmin, Schurgers, Guy, Peñuelas, J., Fensholt, Rasmus, Yang, H., Tang, Jing, Tong, Xiaowei, Ciais, P. & Brandt, Martin Stefan, 2023, In: Nature Communications. 14, 1, 9 p., 965.

### **Reforestation policies around 2000 in southern China led to forest densification and expansion in the 2010s**

Tong, Xiaowei, Brandt, Martin Stefan, Yue, Y., Zhang, Xiaoxin, Fensholt, Rasmus, Ciais, P., Wang, K., Liu, Siyu, Zhang, Wenmin, Mao, C. & Jepsen, Martin Rudbeck, 2023, In: Communications Earth and Environment. 4, 8 p., 260.

### **Rural outmigration generates a carbon sink in South China karst**

Chang, J., Yue, Y., Tong, Xiaowei, Brandt, Martin Stefan, Zhang, C., Zhang, Xuemei, Qi, X. & Wang, K., 2023, In: Progress in Physical Geography. 47, 5, p. 655-667

### **A large but transient carbon sink from urbanization and rural depopulation in China**

Zhang, Xiaoxin, Brandt, Martin Stefan, Tong, Xiaowei, Ciais, P., Yue, Y., Xiao, X., Zhang, Wenmin, Wang, K. & Fensholt, Rasmus, 2022, In: Nature Sustainability. 5, p. 321-328 8 p.

### **Large scale rocky desertification reversal in South China karst**

Yue, Y., Qi, X., Wang, K., Liao, C., Tong, Xiaowei, Brandt, Martin Stefan & Liu, B., 2022, In: Progress in Physical Geography. 46, 5, p. 661-675

### **The Carbon Sink Potential of Southern China After Two Decades of Afforestation**

Zhang, X. M., Brandt, Martin Stefan, Yue, Y. M., Tong, Xiaowei, Wang, K. L. & Fensholt, Rasmus, 2022, In: Earth's Future. 10, 12, 13 p., e2022EF002674.

### **The carbon sink potential of southern China after two decades of afforestation**

Zhang, X., Brandt, Martin Stefan, Yue, Y., Tong, Xiaowei, Wang, K. & Fensholt, Rasmus, 2022, 21 p. (Earth's Future).

### **The confounding effect of snow cover on assessing spring phenology from space: A new look at trends on the Tibetan Plateau**

Huang, Ke, Zhang, Y., Tagesson, Håkan Torbern, Brandt, Martin Stefan, Wang, L., Chen, N., Zu, J., Jin, H., Cai, Z., Tong, Xiaowei, Cong, N. & Fensholt, Rasmus, 1 Feb 2021, In: Science of the Total Environment. 756, 15 p., 144011.

### **Responses and feedbacks of African dryland ecosystems to environmental changes**

Wei, F., Wang, S., Brandt, Martin Stefan, Fu, B., Meadows, M. E., Wang, L., Wang, L., Tong, Xiaowei & Fensholt, Rasmus, Feb 2021, In: Current Opinion in Environmental Sustainability. 48, p. 29-35 7 p.

### **Eco-engineering controls vegetation trends in southwest China karst**

Zhang, Xuemei, Yue, Y., Tong, Xiaowei, Wang, K., Qi, X., Deng, C. & Brandt, Martin Stefan, 2021, In: Science of the Total Environment. 770, 145160.

### **Do afforestation projects increase core forests? Evidence from the Chinese Loess Plateau**

Wang, Y., Brandt, Martin Stefan, Zhao, M., Xing, K., Wang, L., Tong, Xiaowei, Xue, F., Kang, M., Jiang, Y. & Fensholt, Rasmus, 1 Oct 2020, In: Ecological Indicators. 117, 11 p., 106558.

### **Forest management in southern China generates short term extensive carbon sequestration**

Tong, Xiaowei, Brandt, Martin Stefan, Yue, Y., Ciais, P., Jepsen, Martin Rudbeck, Penuelas, J., Wigneron, J. P., Xiao, X., Song, X. P., Horion, Stéphanie, Rasmussen, Kjeld, Saatchi, S., Fan, L., Wang, K., Zhang, B., Chen, Z., Wang, Y., Li, X. & Fensholt, Rasmus, 2020, In: Nature Communications. 11, 1, 10 p., 129.

### **Large scale reforestation of farmlands on sloping hills in South China karst**

Yue, Y., Liao, C., Tong, Xiaowei, Wu, Z., Fensholt, Rasmus, Prishchepov, Alexander V., Jepsen, Martin Rudbeck, Wang, K. & Brandt, Martin Stefan, 2020, In: Landscape Ecology. 35, p. 1445–1458 14 p.

### **Ecological engineering projects increased vegetation cover, production, and biomass in semiarid and subhumid Northern China**

Niu, Q., Xiao, X., Zhang, Y., Qin, Y., Dang, X., Wang, J., Zou, Z., Doughty, R. B., Brandt, Martin Stefan, Tong, Xiaowei, Horion, Stéphanie, Fensholt, Rasmus, Chen, C., Myneni, R. B., Xu, W., Di, G. & Zhou, X., 2019, In: Land Degradation & Development. 30, 13, p. 1620-1631 12 p.

### **Karst ecosystem observation and assessment at local and regional scales**

Wang, K., Yue, Y., Brandt, Martin Stefan & Tong, Xiaowei, 2019, In: InterCarto, InterGIS. 25, p. 43-47 5 p.

### **Ecological restoration enhances ecosystem health in the karst regions of southwest China**

Liao, C., Yue, Y., Wang, K., Fensholt, Rasmus, Tong, Xiaowei & Brandt, Martin Stefan, 2018, In: Ecological Indicators. 90, p. 416-425 10 p.

### **Major forest increase on the Loess Plateau, China (2001–2016)**

Wang, Y., Brandt, Martin Stefan, Zhao, M., Tong, Xiaowei, Xing, K., Xue, F., Kang, M., Wang, L., Jiang, Y. & Fensholt, Rasmus, 2018, In: Land Degradation and Development. 29, 11, p. 4080-4091 12 p.

### **Satellite-Observed Major Greening and Biomass Increase in South China Karst During Recent Decade**

Brandt, Martin Stefan, Yue, Y., Wigneron, J. P., Tong, Xiaowei, Tian, F., Jepsen, Martin Rudbeck, Xiao, X., Verger, A., Mialon, A., Al-Yaari, A., Wang, K. & Fensholt, Rasmus, 2018, In: Earth's Future. 6, 7, p. 1017-1028 12 p.