

Recommended Background Reading Materials

Sunnylands and Glasgow Commitments and Carbon Neutrality Goals

1. [Tracking Subnational Progress Toward Carbon Neutrality in the U.S. and China](#). Fredrich Kahrl, Jessica Gordon, Fan Dai, and Jie Han. November 2023.
2. [Global Climate Action 2023: Ambition of Cities, Regions, and Companies](#). Song, K., Hsu, A., Burley, K., Roelfsema, M., Jones, C., Clapper, A., & Du, L.. September 2023.
3. [Forging A Shared Path to a Net-Zero Future: U.S.-China Climate Action Opportunities Paper Series](#). Multiple Authors. 2023.
4. [From powerpoint to powerplant- evaluating the impact of the US-China Sunnylands commitment to tripling global renewable energy capacity by 2030](#). Ari Ball-Burack, Xi Xi, and Daniel M Kammen. April 2024.
5. [All Hands on Deck: Securing America's Net-Zero Future with State-Led, High-Impact Action](#). United States Climate Alliance, 2023.
6. [中国碳中和与清洁空气协同路径2023](#) (China's Pathway to Carbon Neutrality and Clean Air). Tsinghua University, 2024.
7. United Nations Framework Convention on Climate Change (UNFCCC), 2021. China's Mid-Century Long-Term Low Greenhouse Gas Emission Development Strategy. October 28.
<https://unfccc.int/sites/default/files/resource/China%20Mid-Century%20Long-Term%20Low%20Greenhouse%20Gas%20Emission%20Development%20Strategy.pdf>
8. United States: Pathways to Net-Zero Greenhouse Gas Emissions by 2050.
<https://www.whitehouse.gov/wp-content/uploads/2021/10/us-long-term-strategy.pdf>
9. He, J., Li, Z., Zhang, X., Wang, H., Dong, W., Du, E., Chang, S., Ou, X., Guo, S., Tian, Z. Gu A., Fei, T. Hu B., Yang, X., Chen, S. Mingtao, Y. Yuan Z., Zhou, Li, Zhao, X. Li, Y. Zhang, D. (2021). Towards carbon neutrality: A study on China's long-term low-carbon transition pathways and strategies. *Environmental Science and Ecotechnology*.
https://ice.tsinghua.edu.cn/_local/2/27/F3/1731430410612ED68465ED7B934_029DA1FE_12C3BF.pdf
10. International Energy Agency (IEA). (2023, September). Net Zero Roadmap: A Global Pathway to Keep the 1.5 °C Goal in Reach.

<https://www.iea.org/reports/net-zero-roadmap-a-global-pathway-to-keep-the-1.5c-global-in-reach>

11. Khanna, N., Zhou, N., & Price, L. (2021, July). Getting to net zero. Retrieved March 21, 2024, from <https://ccci.berkeley.edu/sites/default/files/GTZChina-Sept2021-FINAL.pdf>
12. [Renewable Energy Pathways To Carbon Neutrality In China](#). Zhenhua Zhang, Ziheng Zhu, Jessica A. Gordon, Xi Lu, Da Zhang, and Michael R. Davidson, October 2023
13. [Getting to Net Zero: U.S.-China Framework and Milestones for Carbon Neutrality](#). Dr. Fan Dai, Dr. Fredrich Kahrl, Dr. Jessica Gordon, Jennifer Perron, Yuqing Zhu, Rawley Loken, Amber Mahone, Nina Khanna, Dr. Nan Zhou, Lynn Price, May 2021.

Other Materials Based on Key Sunnylands Topics

Sustainable and Green Transition

1. [Theme Report on Enabling SDGs Through Inclusive, Just Energy Transitions](#). United Nations, 2021
2. [中国碳中和与清洁空气协同路径2023](#) (China's Pathway to Carbon Neutrality and Clean Air). Tsinghua University, 2024
3. [Coordinated Governance of Air and Climate Pollutants- Lessons from the California Experience](#), Alex Wang, David Pettit, Siyi Shen, 2020
4. Sinton, J. E., & Fridley, D. G. (2000, August). What goes up: recent trends in China's energy consumption. *Energy Policy*, 28(10), 671-687.
[https://doi.org/10.1016/S0301-4215\(00\)00053-7](https://doi.org/10.1016/S0301-4215(00)00053-7)
5. Bleischwitz, R., Yang, M., Huang, B., Xu, X., Zhou, J., McDowall, W., Andrews-Speed, P., Liu, Z., & Yong, G. (2022). The circular economy in China: Achievements, challenges and potential implications for decarbonization. *Resources, Conservation and Recycling*, 183, 106350. <https://doi.org/10.1016/j.resconrec.2022.106350>
6. Ranta, V., Aarikka-Stenroos, L., Ritala, P., & Mäkinen, S. J. (2018). Exploring institutional drivers and barriers of the circular economy: A cross-regional comparison of China, the US, and Europe. *Resources, Conservation and Recycling*, 135, 70–82.
<https://doi.org/10.1016/j.resconrec.2017.08.017>
7. He, G., Lin, J., Zhang, Y., Zhang, W., Larangeira, G., Zhang, C., Peng, W., Liu, M., & Yang, F. (2020). Enabling a Rapid and Just Transition away from Coal in China. *One Earth*, 3(2), 187–194. <https://doi.org/10.1016/j.oneear.2020.07.012>
8. Pollin, R., & Callaci, B. (2019). The Economics of Just Transition: A Framework for Supporting Fossil Fuel–Dependent Workers and Communities in the United States. *Labor Studies Journal*, 44(2), 93–138. <https://doi.org/10.1177/0160449X18787051>
9. World Resource Institute. (2021). *Colorado, United States: State-Level Planning for a Just Transition from Coal*.
<https://www.wri.org/update/colorado-united-states-state-level-planning-just-transition-coal>

10. Simas, M., Rocha Aponte, F., & Wiebe, K. S. (2022). *The Future is Circular—Circular Economy and Critical Minerals for the Green Transition*. SINTEF Industri.
<https://sintef.brage.unit.no/sintef-xmlui/handle/11250/3032049>

Local Climate Resilient Development

1. Kennedy, S., C. Wade, L. Ma, H. Leslie-Bole, C. Dahl, A. Favero, A. Zhao, K. Kennedy, A. Trivedi, S. Edelstein, A. Joel Canton, A. Denvir, K. Clark-Sutton, S. Wood, G. Hurtt, and N. Hultman (2024). "[Harnessing the Land Sector to Achieve U.S. Climate Goals: An all-of-society approach to meeting our climate goals and bolstering the carbon sink by 2035](#)." Center for Global Sustainability, University of Maryland and America Is All In.
2. [Achieving a Multi-Beneficial Nature-Based Climate Strategy: An Institutional Framework for Advancing Subnational Climate Action](#). Jessica Gordon, Nathaniel Dolton-Thornton, Louise Bedsworth, Michelle Passero, Fan Dai, Jennifer Perron, Jane Sadler, 2022
3. [加速气候韧性基础设施建设 \(Accelerating Climate-Resilient Infrastructure Investment in China\)](#), World Resource Institute, 2021
4. Zhang, S., Zhang, C., Cai, W., Bai, Y., Callaghan, M., Chang, N., Chen, B., Chen, H., Cheng, L., Dai, H., Dai, X., Fan, W., Fang, X., Gao, T., Geng, Y., Guan, D., Hu, Y., Hua, J., Huang, C., ... Gong, P. (2023). The 2023 China report of the Lancet Countdown on health and climate change: Taking stock for a thriving future. *The Lancet Public Health*, 8(12), e978–e995. [https://doi.org/10.1016/S2468-2667\(23\)00245-1](https://doi.org/10.1016/S2468-2667(23)00245-1)
5. Shi, L., & Moser, S. (2021). Transformative climate adaptation in the United States: Trends and prospects. *Science*, 372(6549), eabc8054.
<https://doi.org/10.1126/science.abc8054>
6. Cui, X. (2020). Climate change and adaptation in agriculture: Evidence from US cropping patterns. *Journal of Environmental Economics and Management*, 101, 102306.
<https://doi.org/10.1016/j.jeem.2020.102306>
7. Chen, S., & Gong, B. (2021). Response and adaptation of agriculture to climate change: Evidence from China. *Journal of Development Economics*, 148, 102557.
<https://doi.org/10.1016/j.jdeveco.2020.102557>
8. Global Commission on Adaptation & World Resource Institute. (2019). *Adapt Now: A Global Call for Leadership on Climate Resilience*.
<https://www.wri.org/initiatives/global-commission-adaptation/adapt-now-report>
9. The Nature Conservancy. (2023). *Accelerating Adaptation: The promise and limitations of Nature-based Solutions in the race to adapt to increasing floods and droughts*.
https://www.nature.org/content/dam/tnc/nature/en/documents/TNC12524_NbS-Adaptation_Report_Nsmall.pdf
10. United Nations Environment Programme. (2023). *Adaptation Gap Report 2023: Underfinanced. Underprepared. Inadequate investment and planning on climate adaptation leaves world exposed*. United Nations Environment Programme.
<https://doi.org/10.59117/20.500.11822/43796>

Clean Energy and Low Carbon Innovation

1. [Pathways to Carbon Neutrality - A Review of Recent Studies on Mid-Century Emissions Transition Scenarios for China](#). California-China Climate Institute, Lawrence Berkeley National Laboratory, 2021
2. [Pathways to Carbon Neutrality: A review of recent mid-century deep decarbonization studies for the United States](#). California-China Climate Institute, Energy and Environmental Economics, 2021
3. [Private and External Costs and Benefits of Replacing High-Emitting Peaker Plants with Batteries](#), Jason Porzio, Derek Wolfson, Maximilian Auffhammer, and Corinne D. Scown 2023
4. [Renewable Electricity Development in China - Policies, Performance, and Challenges](#), Maximilian Auffhammer, Min Wang, Lunyu Xie, and Jintao Xu, 2021
5. [A Heavy Lift: Policy Solutions to Accelerate Deployment of Zero-Emission Cargo Handling Equipment at the Ports of Long Beach and Los Angeles and Beyond](#), Beth Kent, and Gabi Rosenfeld, 2023
6. Xue, L., & Liu, D. (2022). *Decarbonizing China's Road Transport Sector: Strategies Toward Carbon Neutrality*.
<https://www.wri.org/research/decarbonizing-chinas-road-transport-sector-strategies-to-ward-carbon-neutrality>
7. Wu, Y. A., Ng, A. W., Yu, Z., Huang, J., Meng, K., & Dong, Z. Y. (2021). A review of evolutionary policy incentives for sustainable development of electric vehicles in China: Strategic implications. *Energy Policy*, 148, 111983.
<https://doi.org/10.1016/j.enpol.2020.111983>
8. Policy Research Center for Environment and Economy, Ministry of Ecology and Environment & Environmental Defense Fund. (2023). *China's Policies and Actions on Carbon Peaking and Carbon Neutrality (2023)*.
<http://www.prcee.org/zyhd/202402/W020240221571739442016.pdf>
9. Brinn, J. (2023). *Building Batteries Better: Doing the Best with Less*.
<https://www.nrdc.org/resources/building-batteries-better-doing-best-less>
10. World Wildlife Fund & Boston Consulting Group. (2023). *Building a Nature-Positive Energy Transformation: Why a Low-Carbon Economy is Better for People and Nature*.
https://files.worldwildlife.org/wwfcmsprod/files/Publication/file/64klnw3w4n_WWF_BCG_Nature_Positive_Energy_Transformation_Report.2023.11.01.FINAL_1_.pdf?_ga=2.14976112.738310580.1715567849-1798470616.1714147346

Methane Mitigation

- [Roadmap for U.S.-China Methane Collaboration Methane Emissions, Mitigation Potential, and Policies](#). Sha Yu, Jenna Behrendt, Mengye Zhu, Xinzhaoh Cheng, Wenli Li, Baobao Liu, Jared Williams, Haiwen Zhang, Ryna Cui, Meredydd Evans, Nathan Hultman, Haewon McJeon, Steve J. Smith, Qimin Chai, Lingyan Chen, Minpeng Chen, Sha Fu, Fei Guo, Lena Höglund Isaksson, Nina Khanna, Manqi Li, Jiang Lin, Yazhen Wu, Zhuoxiang Yang. 2023.

- [Abandoned Coal Mine Methane Reduction- Lessons from the United States](#). Rixin Zhu, Nina Khanna, Jessica Gordon, Fan Dai, and Jiang Lin, 2023
- [Reducing Methane Emissions from the Solid Waste Sector: Lessons from California's Experiences](#). Rixin Zhu, Nina Khanna, Jessica Gordon, Kaifeng Huo, Fan Dai, and Jiang Lin, 2023
- [Measurement, reporting and Verification \(MRV\) of non-CO₂ greenhouse gases- International Best Practices and Suggestions for China](#). Wenjun Wang, Nina Khanna, Xu Liu, and Jiang Lin, 2023
- [Ahead of the Herd: Policy Solutions to Accelerate Livestock Methane Emissions Reduction in California](#). Ethan N. Elkind, Ted Lamm, Ross Zelen, and Gil Damon, 2022
- [甲烷减排:碳中和新焦点](#) (Methane Mitigation: New Focus of Carbon Neutrality). Min Hu, Hong Liang, Meian Chen, Wanyi Wu, and Haomiao Geng, 2022
- Chen, D., Chen, A., Hu, X., Li, B., Li, X., Guo, L., Feng, R., Yang, Y., & Fang, X. (2022). Substantial methane emissions from abandoned coal mines in China. *Environmental Research*, 214, 113944. <https://doi.org/10.1016/j.envres.2022.113944>
- Duan, Y., Gao, Y., Zhao, J., Xue, Y., Zhang, W., Wu, W., Jiang, H., & Cao, D. (2023). Agricultural Methane Emissions in China: Inventories, Driving Forces and Mitigation Strategies. *Environmental Science & Technology*, 57(36), 13292–13303. <https://doi.org/10.1021/acs.est.3c04209>
- Cusworth, D. H., Thorpe, A. K., Ayasse, A. K., Stepp, D., Heckler, J., Asner, G. P., Miller, C. E., Yadav, V., Chapman, J. W., Eastwood, M. L., Green, R. O., Hmiel, B., Lyon, D. R., & Duren, R. M. (2022). Strong methane point sources contribute a disproportionate fraction of total emissions across multiple basins in the United States. *Proceedings of the National Academy of Sciences*, 119(38), e2202338119. <https://doi.org/10.1073/pnas.2202338119>
- Cusworth, D. H., Duren, R. M., Ayasse, A. K., Jiorle, R., Howell, K., Aubrey, A., Green, R. O., Eastwood, M. L., Chapman, J. W., Thorpe, A. K., Heckler, J., Asner, G. P., Smith, M. L., Thoma, E., Krause, M. J., Heins, D., & Thorneloe, S. (2024). Quantifying methane emissions from United States landfills. *Science*, 383(6690), 1499–1504. <https://doi.org/10.1126/science.adl7735>