

Green Infrastructure Programs of New York and Shanghai

BINGHAMTON
UNIVERSITY
STATE UNIVERSITY OF NEW YORK

The Source Project: People, Politics and The Environment
Sebastian Male-Diaz

Background

- In 2010, China surpassed Japan to become the second-largest economy in the world
- As of 2025, the United States remains the world's largest economy, with China close behind
- The U.S. experienced its Industrial Revolution in the 1800s, while China began its rapid industrialization in the 1980s
- Both nations relied heavily on fossil fuels during their industrial growth, significantly increasing carbon emissions
- China's development lifted hundreds of millions out of poverty but also made it the world's largest emitter of greenhouse gases
- Historically, the U.S. has contributed the most to global carbon emissions due to its long-term industrial activity.
- Today, both countries are investing in clean energy technologies like solar power, electric vehicles, and wind energy
- The U.S. promotes climate innovation through private sector incentives and legislation such as the Inflation Reduction Act of 2022
- China takes a top-down approach with large-scale, government-led projects like "sponge cities" and a national carbon trading market
- The actions of the U.S. and China are crucial, together, they will heavily influence the world's ability to fight climate change effectively

Methodology

- Begin researching green infrastructure programs of cities throughout the United States and China
- Choose two major cities of those countries
- Gathered data on green infrastructure programs occurring in New York
- Gathered data on green infrastructure programs occurring in Shanghai
- Compare green infrastructure programs of New York and Shanghai and see if there is a difference



Conclusion

The comparison of New York and Shanghai with green infrastructure programs shows that:

- New York has implemented a comprehensive green infrastructure program, integrating over 12,000 programs such as rain gardens, green roofs, and permeable pavements
- It has an aim to transform urban spaces by planting grass, trees, flowers and shrubs in the center strips that separate lanes of traffic on roads, making streets more eco-friendly and visually appealing. Also enhancing stormwater management and air quality
- Shanghai has embraced the "sponge city" concept. They are focusing on urban flood management through the enhancement of green spaces and permeable surfaces.
- The city plans to expand its green ecological spaces significantly. Examples include the development of new parks and greenways, improve water absorption and reduce urban heat effect

The comparison of these two cities demonstrates how different political systems and urban priorities shape unique approaches to green infrastructure.

Further Research

This is a big deal for climate change because both the U.S. and China are the world's top carbon emitters. Their global rivalry directly affects how much they cooperate or compete on climate action. If they're locked in a Cold War-style standoff, meaningful collaboration becomes harder, which slows global progress on reducing emissions.

-China's push for a new world order, where it leads in innovation and global influence, means it also wants to shape the future of green technology. Examples of green technology include solar energy, electric vehicles, and batteries. This could be good for the planet if it's done responsibly. But if this competition turns hostile, both countries might prioritize dominance over cooperation, even if that hurts the climate in the long run.

-The takeaway is this: the outcome of this U.S.-China rivalry could shape the future of our planet. Whether they choose competition or cooperation will determine how fast and effectively the world tackles climate change. If the two largest powers can find common ground, their combined leadership could drive a global shift toward sustainability. However, if rivalry wins out, we all stand to lose.