



# Cracks in Climate Collaboration

Is There Path to Revive U.S.-China Climate Relations?

A long time ago in a galaxy  
far, far away....



**2009 Obama - Hu Clean Energy Agreements**

Photo Credit: White House Flickr

**Climate Ping Pong:** Clean Energy Forums, US-China Climate Working Group, US China Clean Energy Research Centers (EVs, Building EE, RE, Green Diesel Trucks, Water & Energy Technologies, Cleaner Coal), Biz Energy Partnership....

**Air Quality Ping Pong:** SO2 Trading, Fuel Efficiency Standards, Regional Air Quality Management & Policies, Green Ports, Cleaner Cookstoves.....



Source: GIPHY. At <https://media.giphy.com/media/MHK10gVYw0RTq/giphy.gif>

# Supporting Foundation of Bilateral Climate Cooperation

## 1979 US-China Science and Technological Cooperate Agreement

Agriculture

Basic Science

Biomedical Research

Health

Energy & Environment

Metrology



Atmospheric & Marine  
Science

Remote Sensing

Food Safety

Nuclear Fusion

Transportation



**US NGOs,  
Foundations,  
National Labs,  
Universities,  
Think Tanks & States  
ALSO Support  
Climate Cooperation**



NRDC, WWF, EDF, WRI, Energy Foundation, Greenpeace, Pacific Environment, Wilson Center, Institute for Sustainable Communities, Rocky Mountain Institute, Carnegie, GGF, blue moon fund, ClimateWorks, Hewlett, Rockefeller Brothers Fund, Energy Foundation, American Bar Association, Vermont Law School, Western Kentucky University, Regulatory Assistance Project, Brookings, Climate Solutions, LBNL, PNNL, ANL, International Council on Clean Transportation, Institute for Transportation and Development, US Green Building Council, State of California, Harvard, Duke, UC Berkeley

# A Race to the Top Opportunity

Buildings 39%  
Global CO2



China 40-50%  
&  
US 36%  
of CO2

CERC-BEE Building retrofit, Energy Efficiency Standards,, Monitoring Technologies

# California Helped Drive Cooperation on EVs

## China



[xujun/Shutterstock.com](#)

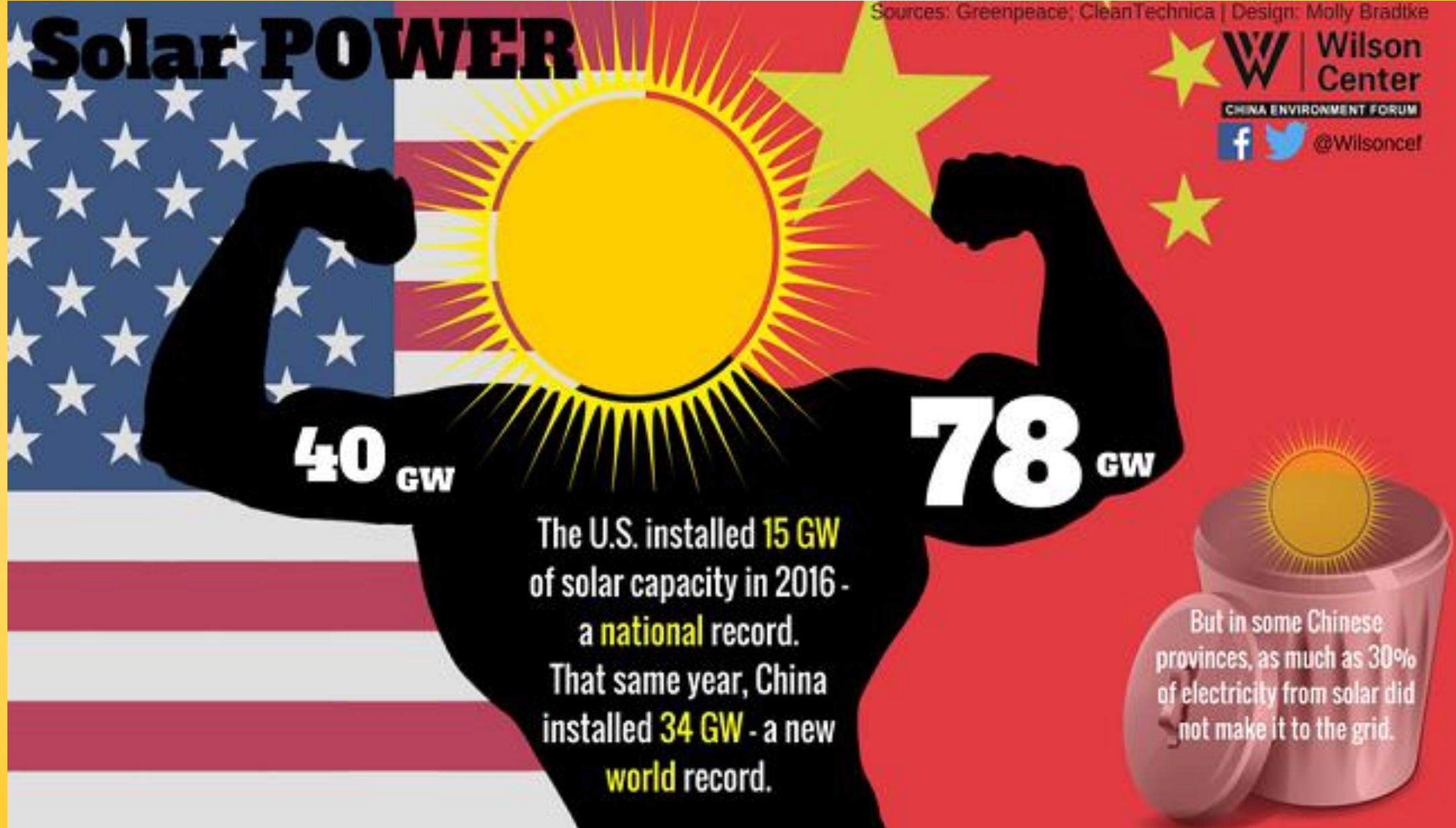
## California



[Dan Schreiber/Shutterstock.com](#)

China's NEV Credit Trading Program Modeled on California's Zero Emission Vehicle Program  
Vehicles to Grid, Battery Swapping, Charging Stations

# Another Race to the Top Opportunity







# 2014 US-China Climate Agreement

# 2017 Doors Shutting



“China is in the driver’s seat when it comes to international climate cooperation.”

\*Foreign NGO Registration Law\*

# Leading in Installed Renewable Energy Capacity 2023 (GW)



<https://www.statista.com/statistics/267233/renewable-energy-capacity-worldwide-by-country/>

Photo Credit: Vadim Petrokov/<https://www.shutterstock.com/image-photo/panorama-offshore-wind-turbines-cloudy-weather-606605153>

# China's Fast Drive for New Energy Vehicles At Home and on the (Belt and) Road



Photo Credit: BYD / <https://insideevs.com/news/544329/byd-han-ev-latin-america/>



Photo Credit: [Alexander23/ https://www.shutterstock.com/image-photo/copenhagen-denmark-nov-8-2022-green-2224254369](https://www.shutterstock.com/image-photo/copenhagen-denmark-nov-8-2022-green-2224254369)

**Jan 2022: 30% EV Subsidy Cuts....2023: Gone!**

# U.S. Hits the Gas on EVs & Clean Energy Investment with Bipartisan Infrastructure Law (2021) & Inflation Reduction Act (2022)



2024 100% Tariffs on Chinese EV Imports

Photo Credit: November 17, 2021, in Detroit. (Official White House Photo by Adam Schultz):

<https://www.flickr.com/photos/whitehouse/51846557668/in/photolist-2jLzSti-2kZiZQA-2kZhSxQ-2nTr39s-2pvGn8R-2mZvaeq-2nct5dQ-2mZpPA6-2m5WBch-2mZy9EA-2pCdv3o-2mZvahG-2jYBRKj-2pG7wMn-2o2AAdh-2pjfJg4-2pFf4nc-2pdDNb8-2mHwrFR-GRCvwn-2mJ8eza-na4mtz-2o1RY7S-dmnmQ2-2jZvU6X-5TEyTa-2kVGudu-2o1FrXC-2kzrCVw-2mNsyKp-2pHe8iX-2pZz1hw-2oab9mz-2pyk5tZ-2ndbnqK-2jZt1in-2nbQBgc>

# CHINA'S MONOPOLY ON CRITICAL MINERALS



SEMICONDUCTORS



WIND TURBINES



BATTERIES



ELECTRIC VEHICLES



DEFENSE SYSTEMS



SOLAR PANELS

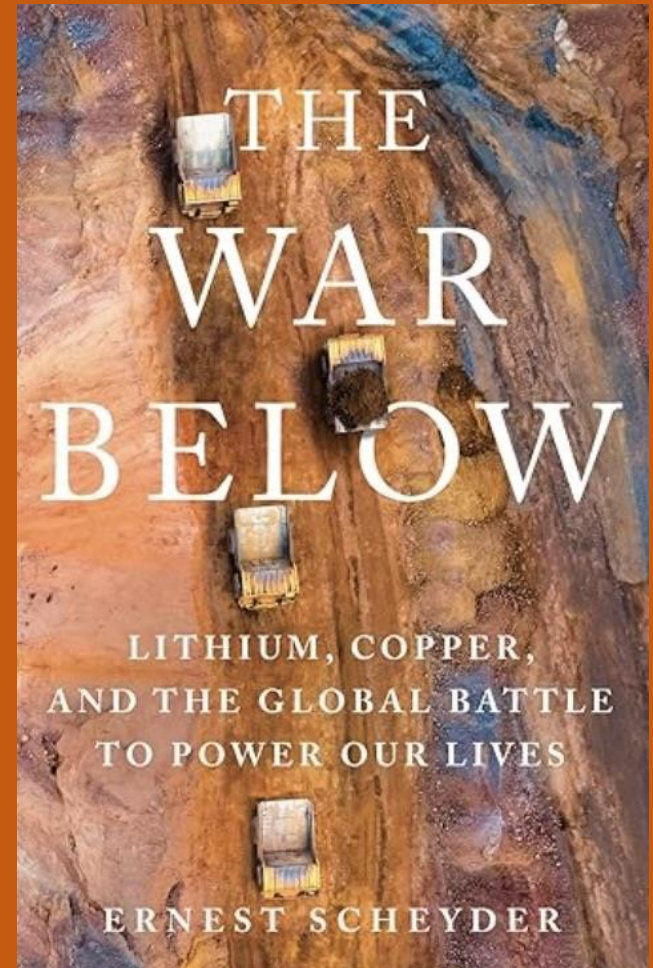


China manufactures 80% of the world's polysilicon, a key solar panel component

## CHINA'S LEAD IN CRITICAL MINERALS PROCESSING



China dominates the processing of lithium, cobalt, and aluminum, controlling over 60% of the world's supply of these minerals which are vital for electric vehicles



**Integration Means  
National Security, Job & IPR Losses**



**Cut Supply Chains and Joint Scientific,  
Tech & Policy Research & Joint Biz**



**US (and EU) Push Clean Tech Import Tariffs  
Scrutiny of Scientific Cooperation**

**Less Innovation**

**Higher Prices for Clean Technology  
Lower Climate Action**

**RISKS OF DECOUPLING FROM  
CHINA ON CLEAN TECH**

**Military Threat From Batteries  
Somewhat Overblown, Not Same as  
Those for Green Tech**

**Too Much Focus on Renewables &  
Critical Minerals**



**Defense Production Act to  
Increase Solar Panel  
Manufacturing &  
Secure Supply Chains**

**Domestic & Friendshoring  
Critical Mineral Mining Hard**

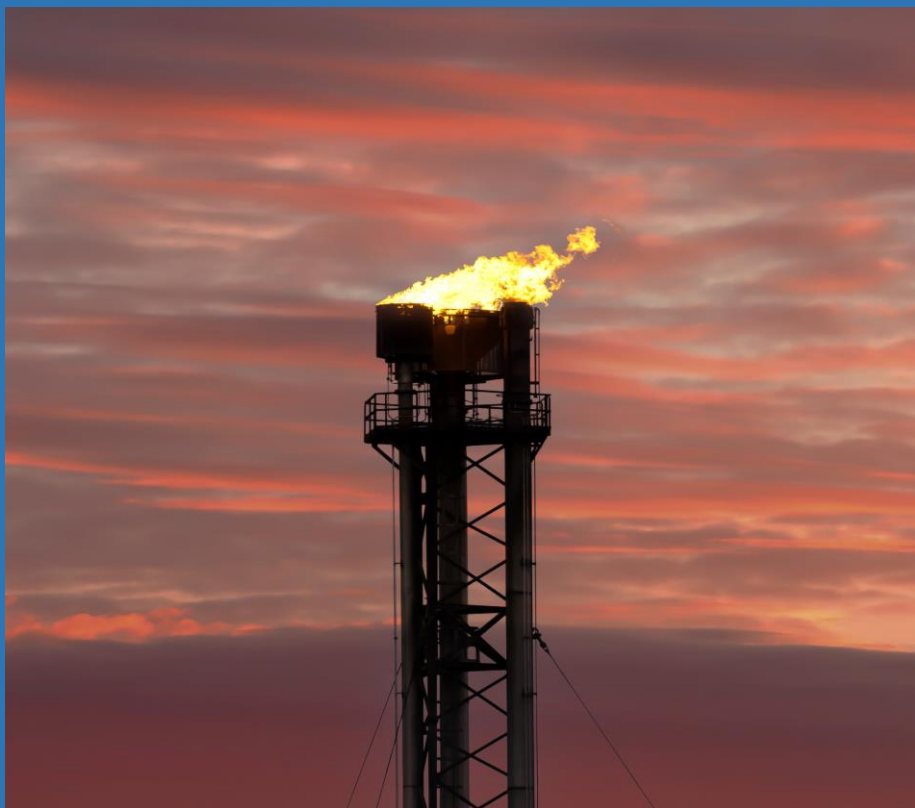
# Hardworking Climate Envoys



**2021 US-China Glasgow Climate Declaration  
& 2023 Sunnylands Agreement**



# Short-Lived Climate Pollutants Dominate US-China Sunnylands Agreement



Lots of Methane Reduction Areas



US and China Signed Kigali Amendment on HFCs

# 2023 FIRST Transpacific Green Shipping Corridor Launched

Ports of Shanghai, LA & Long Beach, Shipping Lines and Cargo Companies  
Partnered with C-40



**Built on 2015 Shanghai & LA Green Ports Initiative**

# Glasgow & Sunnylands Put Food and Agriculture on the Climate Table



**One-Third of Greenhouse Gas Emissions Come from  
Agriculture/Food Production**

Photo Credits: Shutterstock.com

# US and China are Food SUPERPOWERS

Agri-Food Greenhouse Gas Emissions are MOOOVING Higher

**11% US (Second Largest Source)**

**8.2% China (Mainly Rice)**



# INTERLINKED AND INTERCONNECTED FOOD

## US-China Agricultural Trade

China is the largest foreign market for US food and agricultural products



**19%** of all US agricultural exports in 2022



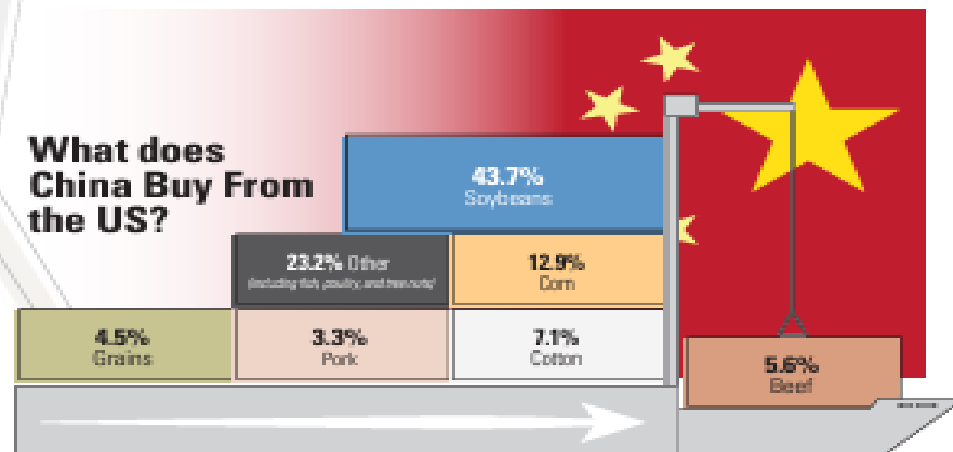
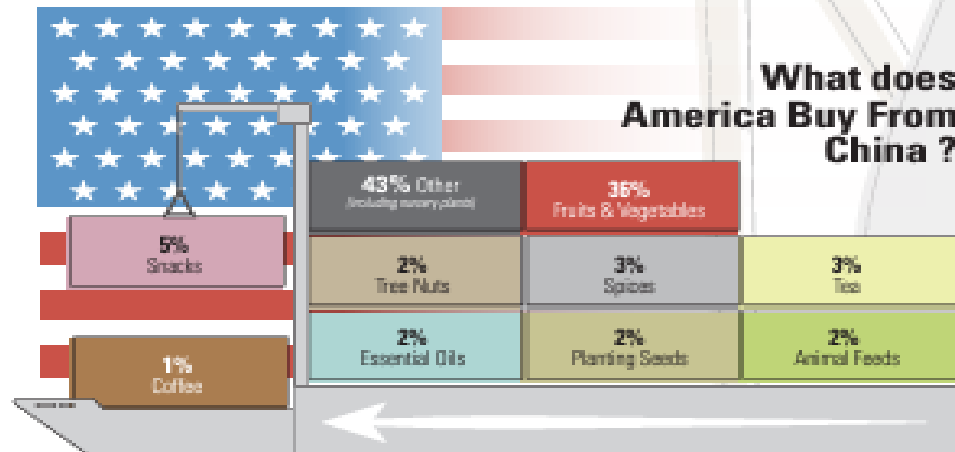
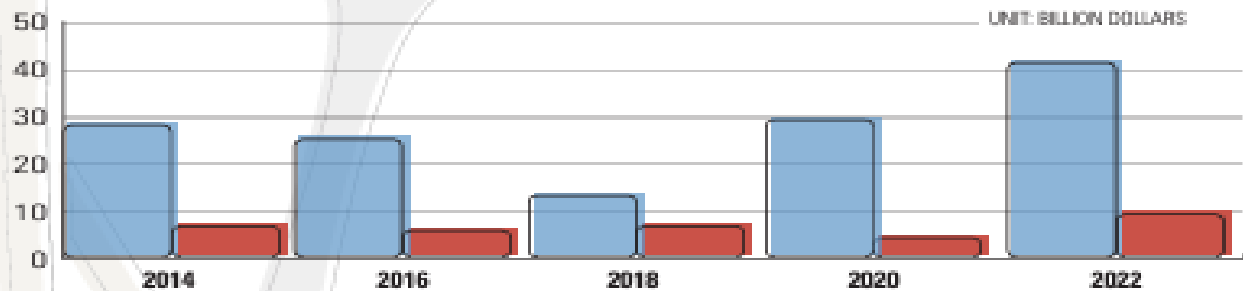
**3x** increase from 2010 to 2022



**\$41<sup>bn</sup>** worth of exports in 2022

Despite trade war, US-China agricultural trade is on the rise again

- US exports to China
- Chinese exports to the United States



\*The percentages represent the monetary value of agricultural commodities each country imports from the other. For example, soybeans are 43.7% of the total value of Chinese agricultural imports from the United States.

# Common Climate Threats to Our Food Security



**Heatwaves From Hell Disrupting Agriculture in China and United States**

# cool agriculture

## Cultivating US and Chinese Climate Leadership



## CULTIVATING US AND CHINESE CLIMATE LEADERSHIP ON FOOD AND AGRICULTURE

### A Roadmap for Collaboration

By Jennifer L. Turner,  
Karen Mancl & Jennifer Nguyen

January 2024



# Low Hanging Fruit for Food and Climate Collaboration

**Soil as Silent Climate Fighter**

Wilson Center | China Environment Forum

**The Two-Step Carbon Deposit**  
**First**, plants absorb carbon dioxide from the air during photosynthesis (~30% of what humans emit every year)  
**Second**, bacteria and fungi break down carbon-based plant and animal and store that carbon in the soil

**Soil is a carbon bank account**

**Conservation Agriculture Practices to Fill the Soil Carbon Account**

- No-till
- Cover crops & crop rotation
- Integrating crops with livestock and trees
- Managed grazing

**Soil Impoverishing Agricultural Practices**  
Tilling, monocrops, removing crop residue, overgrazing and excessive fertilizers release soil carbon BACK into the atmosphere

Soil is the largest reservoir of carbon, 3x the amount stored in living plants

Sources: Climate Central, Columbia University, Nature, Science Direct, World Bank

Soil

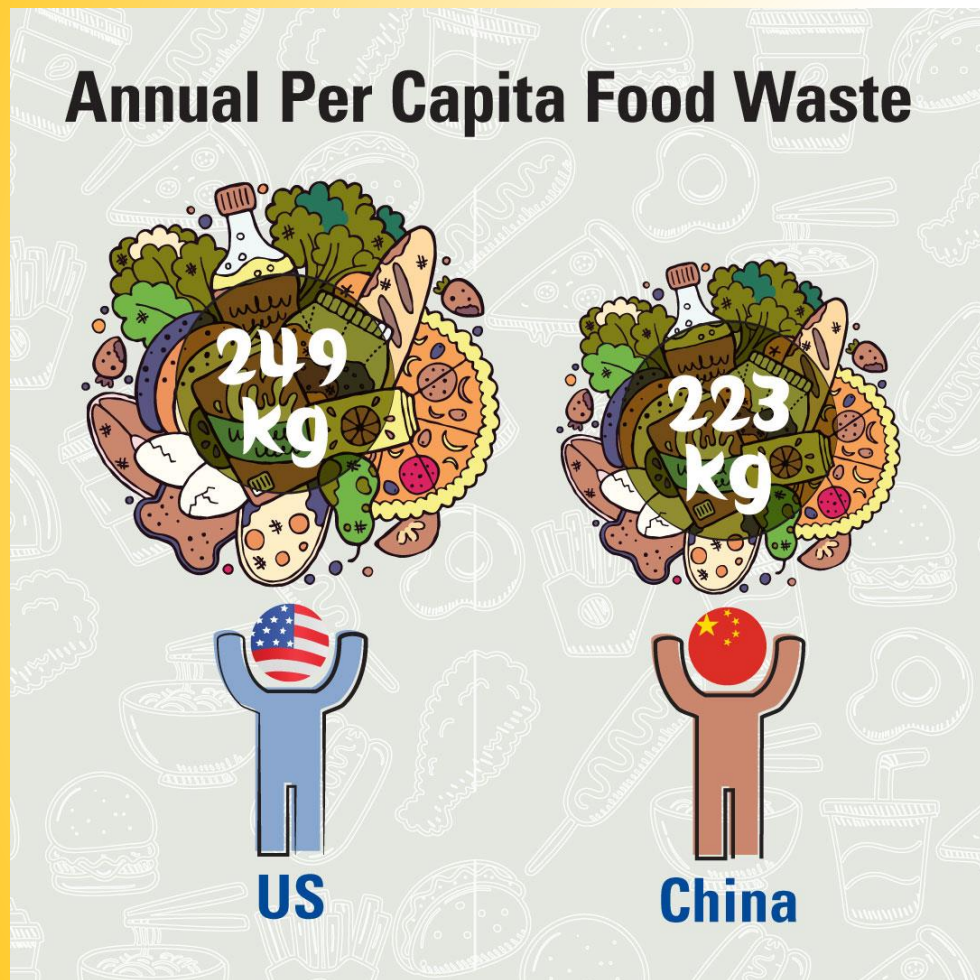


Rice

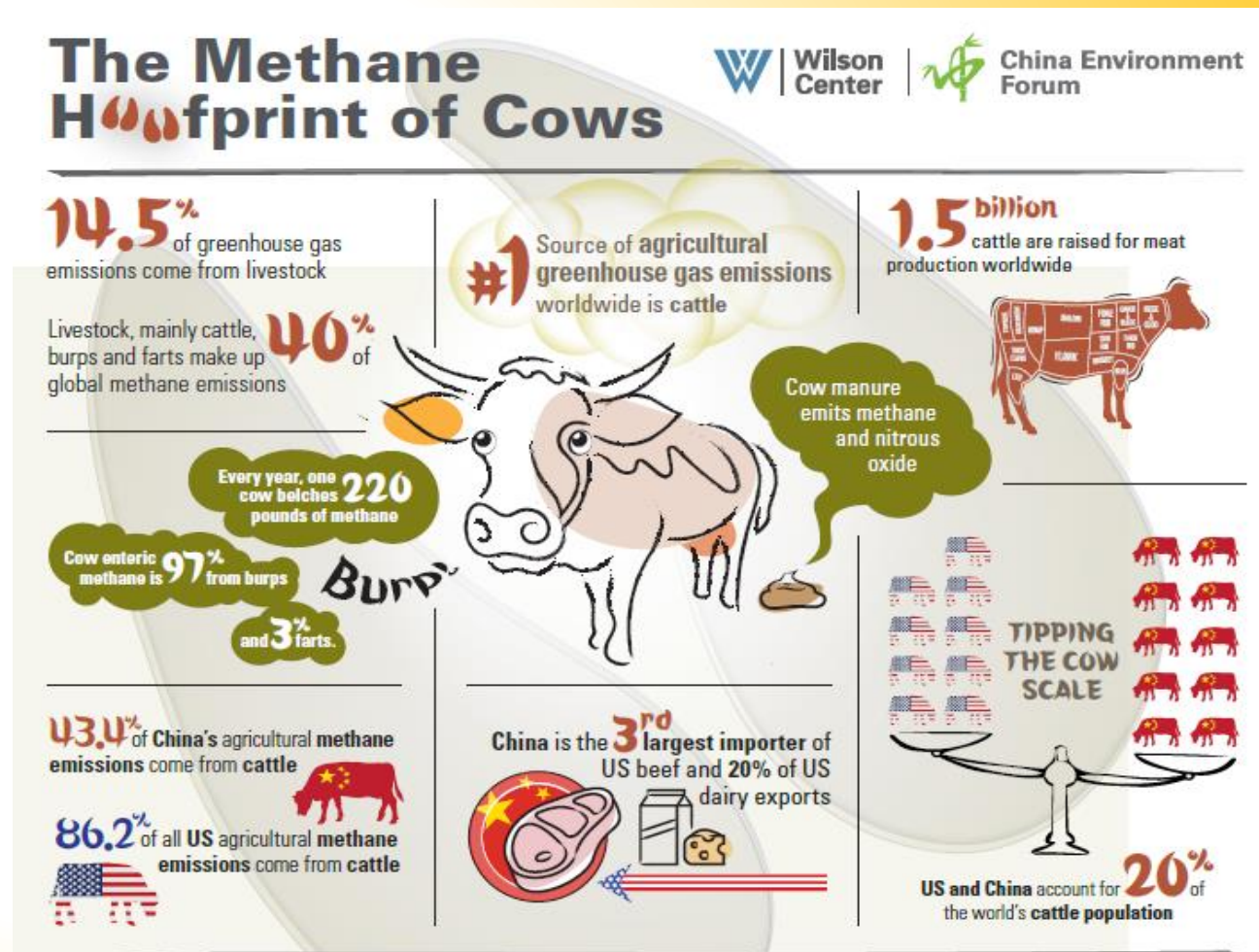
2.3% Global GHGs



# More Low Hanging Fruit for Food and Climate Collaboration



Food Waste



Dairy Cows

# Food was ALSO on the Table at COP28



 Switch to Low Carbon Version



العربية



United Nations  
Climate Change

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[Declarations](#)

[Media Hub](#)

[Actionism](#)

# COP28 UAE DECLARATION ON SUSTAINABLE AGRICULTURE, RESILIENT FOOD SYSTEMS, AND CLIMATE ACTION



**US & China Joined 150+ Countries  
Committing to Add Food and Agriculture to Climate Plans**

Questions?





# Join The China Environment Forum!

[wilsoncenter.org/program/china-environment-forum](http://wilsoncenter.org/program/china-environment-forum)

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