

U.S.-China Cooperation on Climate Change – Transport Focus

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2/26/15

The Big Picture

- China and the U.S. are the world's largest emitters of greenhouse gases – together responsible for ~35% of the world's net total.
- Successful, long-term, global climate mitigation hinges in large part on what our two countries do.
- Climate change cooperation is a high priority and a bright spot in the U.S.-China bilateral relationship.

November 2014 Joint Announcement



- Historic joint announcement by President Obama and President Xi of our respective post-2020 climate targets:
 - U.S.: reduce net GHGs 26-28% below 2005 levels by 2025
 - China: peak CO₂ emissions around 2030 and make best efforts to peak earlier; increase non-fossil energy share to around 20% by 2030
- Announcement builds momentum for ambitious global deal and even stronger, expanded bilateral cooperation.

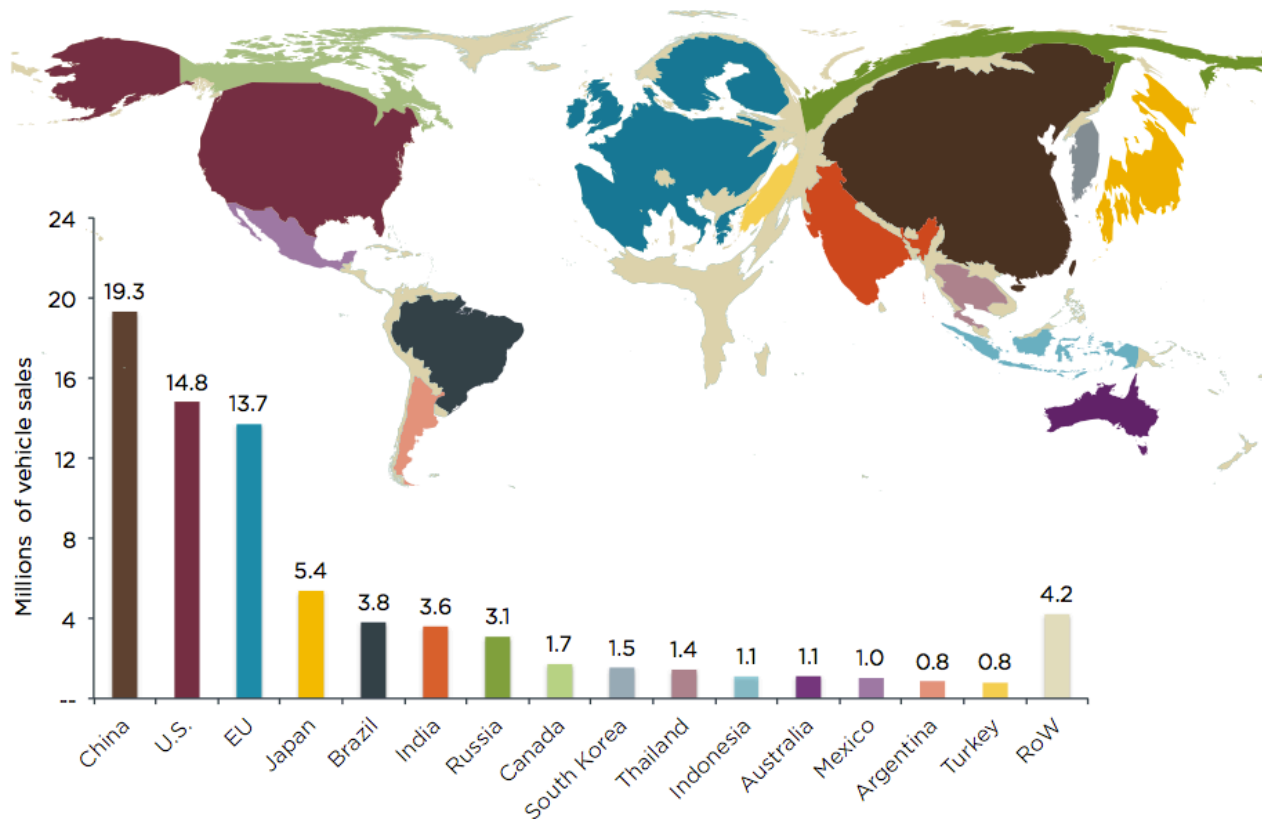
What is China doing?

- Major climate targets/actions:
 - Reduce carbon intensity of the economy 40-45% from 2005 levels by 2020 (achieved to date: 28.6%)
 - Increase share of non-fossil energy to 15% by 2020 (achieved to date: 9.8%), and to around 20% by 2030
 - Massive investments in renewable energy – China is #1 in the world
 - 7 carbon trading pilots with plans for national market
 - Peak CO₂ around 2030 and make best efforts to peak earlier
- Contributing factors:
 - Economic restructuring away from heavy industry and towards services
 - “Natural” improvements in energy intensity/carbon intensity
 - Air pollution control efforts

Motor Vehicles in China

- China is the world's largest motor vehicles market (the United States is second)

Top 15 Car and Truck Markets by Sales in 2012



Controlling the energy and environmental impacts of vehicles in China

- Progress...
 - Adopted regulations will require Euro 5/V-equivalent tailpipe emission standards and 10ppm sulfur gasoline and diesel nationwide by 2018; working on China 6/VI standards now
 - LDV fuel efficiency regs in place since 2005; announced 2020 light-duty fuel economy target of 5.0 l/100km (47 mpg)
 - HDV fuel efficiency regs in place since 2012; working on Phase 2 now
- ...but challenges remain
 - Compliance and enforcement
 - In-use vehicle emission control
 - Non-road engine emission control
 - ZEV deployment
 - Continued rapid vehicle population growth
- **Many opportunities for U.S.-China cooperation**

Four Elements of U.S.-China Climate Cooperation

U.S.-China Climate Change Working Group

1. Dialogue on post-2020 plans to limit GHG emissions
2. Cooperation to phase-down HFCs
3. Sectoral, project-based initiatives
4. Existing, broader energy/environment cooperation and dialogues

- CCWG was launched by Secretary Kerry in April 2013 to reinvigorate and refocus our climate cooperation

CCWG Sectoral Initiatives

- Goal is to achieve concrete outcomes
- Working-level, agency-to-agency dialogues, exchanges, experience transfer, pilot projects, etc.
- Current initiatives:
 1. **Heavy-Duty and Other Vehicles**
 2. Smart Grids
 3. Carbon Capture, Utilization, and Storage
 4. Energy Efficiency in Buildings and Industry
 5. GHG Data Management
 6. Climate Change and Forests
 7. **Climate-Smart / Low-Carbon Cities**
 - (8.) Joint Study on Boiler Efficiency and Fuel Switching
 - 9., 10., 11.... Future initiatives?

CCWG Vehicles Initiative

- Workstreams:
 1. Enhanced heavy-duty and other vehicle fuel efficiency standards
 2. Clean fuels and vehicle emissions control technologies
 3. Promotion of efficient, clean freight
- Participating agencies:
 - U.S.: DOT, EPA
 - China: National Development and Reform Commission (NDRC): overall coordination; Ministry of Transportation (MOT): clean freight; Ministry of Environmental Protection (MEP): tailpipe emission standards, clean fuels; Ministry of Industry and Information Technology (MIIT): fuel efficiency standards
- Mechanisms for cooperation: workshops, study tours, trade missions, laboratory round-robin testing, etc.

HDV Work plan: Exchange technical information on...

- ...light- and heavy-duty efficiency and/or GHG emissions standards, including projected emission reduction benefits.
- ...rulemaking process and reg development process
- ...corresponding model for determining compliance with domestic standards.

New Initiatives lead by DOT

- Smart Urban Transportation Conference
 - April 21-22, 2015, Shanghai
 - Sync with Climate Smart / Low-Carbon City initiative
 - Leverage US-China Transportation Forum's Urban Congestion WG
- Zero Emissions Bus program – Race to Zero Emission – R2ZE



- USDOT-Ministry of Transport
- Transportation Forum's Working Group
 - New Technology in Rail WG (FRA)
 - Hazardous Materials WG (PHMSA)
 - Safety and Disaster Assistance WG (OST S-60)
 - Ports and Inland Waterways WG (MARAD)
 - Urban Congestion WG (FTA)
- Next TF – November 5th-6th in Suzhou, China

CCWG Results

- July 2014 Climate Change Working Group Report:
<http://www.state.gov/r/pa/prs/ps/2014/07/229308.htm>
- With U.S. technical and regulatory assistance:
 - China made first-ever commitment to Phase 2 HDV efficiency standards
 - China made first-ever commitment to develop filter-forcing “China VI” tailpipe emission standards
 - Numerous workshops, trainings, study tours, etc.
- Currently working on 2015 report and outcomes...

U.S.-China Climate Cooperation – Summary

- Comprehensive web of collaboration covers all sectors, all gases, short-term and long-term
- Core, project-based cooperation:
 - Proves “win-win” rhetoric is not just rhetoric
 - Creates strong foundation of trust
 - Achieves real technological / regulatory progress
- Strong foundation of working constructively together enables stronger post-2020 dialogue – including on the road to Paris – and more ambitious targets



11/12/14: “As the world’s two largest economies, energy consumers and emitters of greenhouse gases, we [the U.S. and China] have a special responsibility to lead the global effort against climate change...

This is a major milestone in the U.S.-China relationship, and it shows what’s possible when we work together on an urgent global challenge.”