

# CLIMATE AND TRADE TASK FORCE

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Governments across the globe are debating how to leverage trade policy to meet climate and environmental objectives. But the interplay between trade and climate policies is complex and contested, thus the need for timely, research-based policy recommendations that can address environmental concerns while sustaining global prosperity.

The **Climate and Trade Task Force** is a nonpartisan group organized by the Center for Commerce and Diplomacy at the UC San Diego School of Global Policy and Strategy for the purpose of providing direction to policymakers on the relationship between climate and trade policies. The Task Force is composed of academics, policy experts, and private-sector actors who jointly examine the interactions between trade and environmental policies in four distinct areas:

1. **Clean Technologies and Supply Chains**
2. **Carbon Border Adjustment Taxes**
3. **Agriculture, Trade, and Climate**
4. **Fisheries Subsidy Reform at the World Trade Organization**

## TASK FORCE CHAIRS

- › **Caroline Freund (Co-Chair)**, Dean, UC San Diego School of Global Policy and Strategy
- › **The Most Honourable Andrew Michael Holness (Co-Chair)**, Prime Minister of Jamaica and Co-Chair of the United Nations Climate Change Financing Initiative (with President of France Emmanuel Macron)

## TASK FORCE MEMBERS (IN ALPHABETICAL ORDER)

- › **Douglas A. Beck**, Vice-President, Worldwide Education, Health and Government at Apple, Inc.
- › **Renee Bowen**, Director, Center for Commerce and Diplomacy, Professor and Pastor Faculty Fellow, UC San Diego School of Policy and Strategy
- › **J. Lawrence Broz**, Associate Director, Center for Commerce and Diplomacy and Professor of Political Science, UC San Diego
- › **Jennifer Burney**, Associate Professor and Marshall Saunders Chancellor's Endowed Chair in Global Climate Policy and Research, UC San Diego School of Global Policy and Strategy
- › **The Honourable Parnell Charles**, Minister of Housing, Urban Renewal, Environmental and Climate Change for the Government of Jamaica
- › **Christopher Costello**, Professor of Environmental and Resource Economics, UC Santa Barbara
- › **Michael Davidson**, Assistant Professor, School of Global Policy and Strategy and Department of Mechanical and Aerospace Engineering, UC San Diego
- › **Una May Gordon**, Director of the Climate Change Division, Ministry of Housing, Urban Renewal, Environmental and Climate Change for the Government of Jamaica
- › **Rafael Pastor**, Chairman, International Advisory Board, UC San Diego School of Global Policy and Strategy
- › **Haishi "Harry" Li**, Postdoctoral Fellow, UC San Diego School of Global Policy and Strategy and Assistant Professor in Economics, University of Hong Kong (starting in 2022)
- › **James E. Rauch**, Professor of Economics, UC San Diego
- › **Katharine L. Ricke**, Assistant Professor, School of Global Policy and Strategy and Scripps Institution for Oceanography, UC San Diego
- › **David Victor**, Professor of Innovation and Public Policy, UC San Diego School of Global Policy and Strategy

## TASK FORCE TOPICS

**Clean Technologies and Supply Chains**  
(led by Michael Davidson)

Since 2010, the costs of clean energy technologies ("clean tech") have fallen dramatically due to economies of scale, learning effects, and globalized supply chains. Prices of solar panels and lithium batteries have dropped by nearly 90%, and wind turbines by 70%. The increasing affordability of alternatives to fossil fuels makes the ambitious goal of 100% clean electricity nationwide by 2035 feasible. However, as the clean tech sector expands to meet climate objectives, it faces policy challenges related to the fact that many components of these technologies are manufactured abroad, particularly in China. The U.S. and several other countries have enacted policy restrictions on imported clean technologies in an attempt to correct this imbalance and to "reshore" production. We cumulate and summarize the preliminary research-based evidence on the impact of these policy interventions, focusing on the *labor market effects in the U.S.*, the *reshoring of clean tech manufacturing*, and the *costs to U.S. consumers*. We also assess current and future areas of U.S. manufacturing strength in clean tech. Our efforts inform policymakers on the trade-offs in clean tech trade and infrastructure policies.

**Carbon Border Adjustment Taxes**  
(led by Jim Rauch)

Should the United States impose a carbon border tax adjustment (BTA) even though no domestic carbon tax is in place? Should the U.S. government encourage "reshoring" of products essential to a post-fossil fuels economy? Both issues are intertwined with our trade relationship with China because China is the world's largest carbon emitter and the world's largest supplier of solar panels. The answer to the first question is "yes." For the Biden Administration to meet targets for greenhouse gas emissions, a BTA is necessary to prevent "leakage" through trade: domestic regulations that reduce carbon emissions will raise costs for U.S. manufacturers, leading to imports from countries with less stringent regulations, thereby dissipating the benefits for the environment. The policy challenge is to estimate BTAs in the absence of an explicit domestic price for carbon. We assemble best practices for estimating the *implicit* price of carbon under current and pending environmental regulations. The answer to the second question is quite possibly "no." Reshoring of clean technologies will occur on its own if the U.S. greatly increases demand for electric cars, wind turbines and the like, thanks to the "home market effect" in trade. The home market effect describes the tendency for large countries to produce and export goods with strong economies of scale and high transport costs. With its large domestic market and its growing demand for clean technologies (encouraged by subsidies and regulations), the U.S. is poised to experience some reshoring of production. We cumulate economic research on this topic.





## Agriculture, Trade, and Climate

(led by Jen Burney)

The United States and China are both major food producers that play key roles in the world food economy. In recent years, the U.S.'s total food trade surplus has shrunk to its smallest levels in over a decade due to the trade crisis, whereas China has recently begun running a food trade deficit and has become the world's largest importer of food. Both countries rely on imports for the high-valued crops (oilcrops for China, and horticulture and specialty crops for the U.S.) that are the cornerstones of wealthier diets. And, importantly, both are *net importers of land-use emissions* -- that is, demand within both countries is leading to higher levels of agricultural emissions in the food both countries import than the emissions caused by production of exported products. This is in part because both are importing emissions-intensive products that drive rainforest destruction. Meeting ambitious climate targets will require contending with the climate impacts of both countries' long-run food security goals, with implications for domestic practices, climate pledge accounting, and border tax adjustments.



## Fisheries Subsidy Reform at the World Trade Organization

(led by Chris Costello)

Fishing is the dominant human influence on the world's oceans and, while some countries have taken strong steps toward sustainable management, the tragedy of the commons still prevails. Overfishing depletes fish stocks and puts ecosystems, human livelihoods, and food security at risk, compromising several Sustainable Development Goals. Annual subsidies of \$22 billion for fuel, vessel construction, and other "capacity-enhancements" drive overfishing by artificially lowering the cost of fishing and allowing fishing to expand on both the intensive and the extensive margins. Unlike subsidies in other economic sectors, fisheries subsidies impose large negative externalities on future generations of fishermen and on other countries, creating a compelling economic rationale for coordinated solutions. The World Trade Organization (WTO) is poised to reverse the ecological and economic inefficiencies created by global fishery subsidies. After debating subsidy reform for nearly two decades, WTO Members are negotiating a final agreement aimed at reversing the negative effects of historical subsidization and setting the stage for a more prosperous and sustainable ocean future. We synthesize the latest economic and ecological research on the effects of fishery subsidies, compile the universe of proposals for subsidy reform at the WTO, and use these data to advise the Biden Administration on specific policy positions that could be supported in the WTO negotiations.