

THIS POWER DIALOGUE IS SIMULTANEOUS & LIVE ACROSS THE U.S.



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5:00 **Marilyn Brown**, Georgia Tech, Moderator, Welcome and Quick Overview
5:05 **Eban Goodstein**, Bard College, Recorded Message
5:10 **Kim Cobb**, Opening speaker, Director, Global Change Program, Georgia Tech
5:20 **Marilyn Brown**, Intro to Drawdown Georgia and the Power Dialogue Panelists:

5:30 **Nathaniel Smith**, Founder and CEO, Partnership for Southern Equity
5:40 **Neela Ram**, Climate Advisor, City of Atlanta
5:50 **Shane Totten**, Director of Education + Research at Southface Institute
6:00 **Tim Echols**, Vice-Chairman, Georgia Public Service Commission

6:10 **Q&A** from students (Alyson Laura to identify the top-voted questions)
6:30 **Discussion** open to all participants (more polling and chatting)
6:55 **Closing remarks and adjourn at 7 pm**

DRAWDOWN GEORGIA & THE POWER DIALOGUE PANEL



What are the most promising solutions for achieving carbon neutrality in Georgia?

Dr. Marilyn A. Brown
Regents' Professor of Sustainable Systems
Georgia Institute of Technology, April 7, 2020

The Power Dialogue is supported by a team of students
from across Georgia

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OPPORTUNITIES TO DO MORE ARE ABUNDANT

ELECTRICITY GENERATION



- Cogeneration
- Demand Response
- Solar Farms & Community Solar
- Rooftop Solar

TRANSPORTATION



- Aviation Groundworks
- Electric Vehicles
- Energy-Efficient Cars
- Energy-Efficient Trucks
- Mass Transit

E.5.5 Forest Protection | Drawdown-Select

Protecting existing forests, including old growth forests, can reduce deforestation rates and safeguard carbon sinks. This includes legal protections as well as market-driven programs.

Criteria	Comments
Technology and Market Readiness (2)	Yes The majority of Georgia is forested, and of these lands about 72% are not intensively managed, so the Technical and Market Readiness of Forest Protection benefits are important. Forests serve as natural conduits of carbon from the atmosphere to the trees and then to the soil and form the largest terrestrial carbon sink for both the globe and for Georgia (Schlager and Bernhardt 2013; Macdonald et al. 2018; Crowther et al. 2018). Thus, Forest Protection is an essential solution for drawing down carbon in Georgia.
Local Expertise & Data Availability (2)	Yes We have abundant local experts in forest ecology and protection at local to federal government agencies, universities, and NGOs with much experience and data, so the Local Expertise and Data Availability benefits are large.
Technically Achievable Potential for Increased CO ₂ Sequestration (3)	Yes Protected forests in Georgia are already present and functioning as an important carbon sequestration solution (Edwards et al. 2013; Crowther et al. 2018; Macdonald et al. 2018; Crow et al. 2018). According to the U.S. Forest Service's Forest Inventory and Analysis (FIA) data, the forests in Georgia net managed for timber averaged 13.8 M t CO ₂ per year of carbon storage in long biomass from year 2007-2017. This is a subset of the annual 27 M t CO ₂ of storage in long biomass estimated for the "Temperate Forest" solution. Thus, a small enhancement in Forest Protection could offer a technically achievable means for increasing CO ₂ sequestration in Georgia by 1 M t CO ₂ .
Cost Competitiveness (4)	Yes About 43% of the current State of Georgia is comprised of forests not managed for timber so little cost would be associated with continued Forest Protection. The cost of carbon damage for unmanaged forests is, essentially \$0 per ton CO ₂ (Faller and Darnell, unpublished data). As these protected forests are already present, with many on public lands and private lands with conservation easements resulting little to no management efforts, so costs are estimated to be low.
Beyond Carbon Attributes (3)	Yes Keeping much of Georgia in forested ecosystems would continue to provide Beyond Carbon benefits to biodiversity conservation, provisioning of water quantity and quality, recreation, and associated job opportunities especially in rural areas. Also see "Temperate Forest Protection and Management".
Forest-Related Disturbance	Yes Reason for further screening in the 2020-2030 timeframe.

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187 Pages of Research Findings

BUILT ENVIRONMENT & MATERIALS



- Alternative Mobility
- Landfill Methane
- Recycling / Waste Management
- Refrigerant Management
- Retrofitting



47 Page Narrative of the Research Process

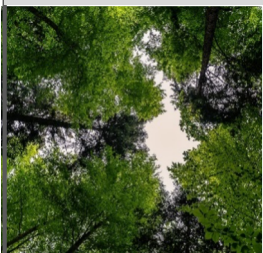
AND GEORGIA'S NATURAL SYSTEMS OFFER EVEN MORE SOLUTIONS

FOOD SYSTEMS



- Composting
- Conservation Agriculture
- Plant-Rich Diet
- Reduced Food Waste

FORESTS AND LAND USE



- Afforestation & Silvopasture
- Coastal Wetlands
- Temperate Forests Protection & Management

BUT THERE'S MUCH TO BE DONE: MARKETS AND POLICIES NEED TO BE TRANSFORMED TO BRING THESE TO SCALE

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EMORY
UNIVERSITY



GEORGIA AND ATLANTA CAN LEAD BY EXAMPLE: WHERE DO WE CURRENTLY STAND?



The World

Energy-Based CO₂ Emissions

33,300,000,000 metric tons



United States

5,133,437,000 metric tons



Georgia

141,700,000 metric tons



Atlanta Metro

74,000,000 metric tons

City of Atlanta

10,750,000 metric tons

Per Capita
Carbon Footprint

4.3 metric tons

IEA 2017 data

15.8 metric tons

EIA and US Census Bureau 2017 data

13.6 metric tons

EIA, GT-NEMS and US Census Bureau
2017 data

12.4 metric tons

2017 data (Markolf, et al.)

21.6 metric tons

2018 data (Matt Cox)

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OUR POWER DIALOGUE PANELISTS HAVE SOME POLICY RECOMMENDATIONS

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5:40 **Neela Ram**, Climate Advisor, City of Atlanta

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TO REACH US AND STAY UP TO DATE:

- Email us at drawdown@gatech.edu
- Check out our websites:
 - ✓ www.GeorgiaDrawdown.org
 - ✓ <https://cepl.gatech.edu/projects/Georgia-Drawdown>
 - ✓ <https://cepl.gatech.edu/node/168>



A BIG THANK YOU to the team of students and colleagues from across Georgia and across the U.S. – for helping to launch this Power Dialogue