

The Science Behind Drawdown Georgia

Summary

What climate solutions will work best in Georgia, and what would it actually take for the state to achieve drawdown, the point where it sequesters more carbon than it emits? In this video, John Lanier of the Ray C. Anderson Foundation introduces Drawdown Georgia's long-term goal, and researchers Daniel Rochberg and Dr. Marilyn Brown explain the science and methodology behind identifying the state's 20 high-impact climate solutions.

Key Takeaways

- Drawdown Georgia's research goal aligns with the Paris Accord's target of limiting global warming to 1.5 degrees Celsius, or 2.7 degrees Fahrenheit, above pre-industrial levels, which requires cutting Georgia's emissions by more than a third by 2030.
- Researchers narrowed Project Drawdown's roughly 100 global solutions down to 20 for Georgia by screening for market readiness, local applicability, meaningful carbon impact, cost-effectiveness, and beyond-carbon considerations like equity and public health.
- The resulting 20 solutions, organized across five sectors, could bring Georgia's carbon footprint down to 79 megatons, a 35% drop, while costing an estimated \$140 million to implement by 2030 in exchange for \$12 billion in projected benefits.
- The 20 solutions call for a wide range of stakeholders: many, like composting, recycling, and rooftop solar, are directly available to individual citizens, others, like cogeneration, require business engagement, and some, like mass transit, depend heavily on government investment.
- With roughly nine years left to implement these solutions at scale toward the 2030 goal, the research team frames this work as just the beginning, moving from analysis into the harder work of solution activation, and invites people in Georgia and beyond to get involved at drawdownga.org.

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John Lanier: What climate change solutions that humanity already has will work best here in Georgia? What would it take for the state of Georgia to achieve drawdown, to become a state that sequesters more carbon than it emits? That's the long-term goal of Drawdown Georgia. There's one thing I've come to realize from all of this: climate change solutions really are so

right, and so smart, for the state of Georgia, and that's true regardless of what any individual person cares about most when it comes to scaling climate solutions here in our state.

As you'll see from the research team in just a moment, if what you care about is carbon emissions, Georgia is absolutely ready to lead on climate. But if what you care about is financial savings over the next decade, once again, Georgia is ready to lead on climate. Perhaps you come to this work with a concern for equity and social justice, the data and research show Georgia is ready to lead on climate to help solve those challenges too. Perhaps what you care about is job creation, once again, Georgia is ready to lead. Perhaps what you care about is our natural environment, the blessings of this state are tremendous, from the mountains down to the coast, and if you want to preserve those lands and the wildlife that lives in them, Georgia is ready to lead on climate. Or perhaps, especially in this era of a pandemic that has rocked our social fabric and changed how we fundamentally live our lives, if what you care about is public health, Georgia is ready to lead on climate too. This amazing team is going to walk us through why the data shows we can solve so many problems, not just our warming planet, by making Georgia that leader on climate.

Daniel Rochberg: From our perspective, it starts with a realization that climate change presents very serious risks to Georgia, and of course to the rest of the world. The flip side is that if we're clear-eyed about those risks, and if we tackle them head-on, there are real opportunities to be found, to both minimize the cost of a changing climate and really seize the opportunities John spoke to, around economic development, equity, public health, and environmental protection.

Marilyn Brown: To avoid the worst that climate change could deliver, our project aligns with the timeframe of the Paris Accord, limiting global warming to no more than 1.5 degrees Celsius above pre-industrial levels. For those of you who can't instantly convert from Celsius to Fahrenheit, that's 2.7 degrees Fahrenheit. To achieve that goal, global emissions need to be cut by more than a third by 2030, and then proceed to zero by mid-century. That's the performance goal we've set for the Drawdown Georgia research program.

The problem is, there's no standard blueprint for action at the state and local level, no playbook you can just pick up and apply. There are global and national studies, and various state and local studies, and they provide thoughtful points of departure, but they all have to be tailored to meet the needs, resources, priorities, and preferences of specific states and localities. So the Drawdown Georgia project set out to fill that gap, by showing how the state of Georgia, and other states after us, can systematically select solutions to cut carbon emissions in ways that are beneficial and equitable.

One thing we like about the Project Drawdown approach is that it didn't just consider traditional science and technology solutions, like engineering, retrofitting, and driving more efficient cars, it also extended its focus to include less traditional opportunities, like educating women and girls, composting, and eating plant-rich diets. Drawdown Georgia is the first significant attempt to translate those roughly 100 solutions into a set specific to the state of Georgia, in fact, the first

time this kind of work has been translated into a state-level action plan. Our timeframe diverges a bit from Project Drawdown, which looked at mid-century goals, we're focusing on 2030, because recent evidence shows time is of the essence.

What I like about this list is that many of these solutions are directly available to citizens of Georgia, you can compost, you can recycle, you can put solar on your rooftop. It's a very democratic list. I also like that it calls for business engagement. Cogeneration, for instance, is a way to generate electricity from waste heat at industrial facilities like pulp and paper mills, food processing plants, and chemical plants, and there, you've got to have business on board. And then, of course, there's the role of government, and in at least one case, mass transit, government is the principal investor. So we have all kinds of combinations of stakeholders engaged across these 20 solutions.

Daniel Rochberg: This is very much just the beginning, and this list represents that. All of these solutions run out to 2030, which means the clock is ticking, we have nine years and a few months to try to implement as many of these at scale as possible, and if and when we do, we'll have made a big dent in Georgia's carbon footprint. We won't be at zero yet, though, and that's the goal, getting to net zero as soon as possible, and hopefully this gives us some very tangible, concrete things to do.

More broadly, the Drawdown Georgia movement wants to hear from you. When we think about solution activation, that's something the Anderson Foundation and others have stressed time and again, this is going to be owned by all of Georgia, and by folks who care about this issue beyond our state too. So please get involved, go to drawdownga.org, there are several ways to sign up for our mailing list, and to get involved through a crowd-solving app called Groopit. This is no longer just a numbers-crunching exercise, this is now an exercise in activating all these solutions, and that goes well beyond any of the folks you've heard from today, even though we're all committed to staying involved.

And the final point: we hope this is useful beyond Georgia too. It's been great to see folks joining us from Connecticut, the West Coast, and Pakistan today. We hope what we're doing can be useful to others, but just as much, we really want to learn from you. So if other states and other countries are doing related work, we want to have that conversation too.