

Climate is a Kitchen Table Issue: A Conversation with Dr. Marshall Shepherd

Summary

In 2020, Drawdown Georgia conducted statewide public opinion research to better understand local perspectives on climate solutions and impacts in Georgia. How have those perspectives evolved since then, and why is climate a "kitchen table" issue that all Georgians can be motivated to act on? Blair Beasley of the Ray C. Anderson Foundation talks with Dr. Marshall Shepherd, a member of the original Drawdown Georgia research team and Georgia Athletic Association Distinguished Professor of Geography and Atmospheric Sciences at the University of Georgia, about how climate change is already showing up in Georgians' daily lives, and what everyday Georgians can do about it.

Key Takeaways

- Dr. Shepherd argues we need to stop discussing climate change in future tense: the intensity and frequency of Georgia's heat waves, rainstorms, droughts, and hurricanes have already changed, and current infrastructure was built for a climate that no longer exists.
- Climate impacts fall unevenly across communities. Dr. Shepherd points to an "extreme weather climate gap" tied directly to income and wealth, where elderly people, children, people of color, and low-income communities face the greatest exposure and the least ability to recover.
- His research at the University of Georgia has identified a "racialized urban heat island" effect, where marginalized and underserved neighborhoods within cities like Atlanta run hotter than the surrounding urban heat island itself.
- Practical climate solutions, composting, driving an EV, rooftop and community solar, and being a "climate voter," are all kitchen-table-level actions Georgians can take, though Dr. Shepherd stresses these individual steps matter most as part of Drawdown Georgia's broader, comprehensive approach.
- Despite a persistent 7 to 9% "dismissive" segment of the population, Dr. Shepherd sees real movement among Georgians and policymakers on both sides of the political aisle, pointing to the state's growing solar, EV, and battery manufacturing industries as evidence of a genuine economic shift already underway.

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Blair Beasley: Dr. Shepherd, thank you so much for talking with me today, I'm always grateful to hear from you, and I learn so much. I'm really excited for this conversation about climate impacts and climate solutions in Georgia. So first, the impacts: I know your scholarship in part looks at the impacts of a changing climate, and you often say these impacts aren't something waiting for us in some distant future, but are really kitchen table issues relevant today. Can you share how Georgians are seeing and feeling the impacts of climate change in our state right now?

Dr. Marshall Shepherd: Thank you so much for having me, Blair, and you're spot on. I actually get a little frustrated at times when I hear people talk about climate change and say things like, "We're going to expect this," or, "We're going to see more of that." We have to stop using future tense, these things are here and now, they're happening right now. The scientific literature is pretty clear that the DNA of climate change is in today's heat waves. As we're recording this, we're coming out of a period of extreme heat, triple-digit temperatures and heat indices, and the literature is fairly conclusive. I was an author on a report from the National Academy of Sciences that found the intensity and frequency of heat waves today carry the DNA of climate change in them. The intensity of Georgia's rainstorms, the top one to two percent most intense rainstorms, is much different than it was in 1950, 1960, or 1970, and that's why we're seeing greater urban flooding in cities like Atlanta, Augusta, and Savannah. The infrastructure was designed for last century's rainstorms, but we have a different type of rainstorm now.

Georgia's a big agricultural state, and we're creeping into a bit of a drought right now, in early summer of 2022. We know drought intensity and frequency has changed too, these aren't things that are going to happen, they're happening now. The intensity of hurricanes as well, our crops in southwest Georgia, after Hurricane Michael devastated much of the region's agricultural crops of all types, some of which were nationwide leading industry providers, so we saw a ripple effect throughout our economy. That's how Georgians are experiencing climate change. There's sea level rise on the coast too, talk to people who live in coastal communities and they'll tell you about levels of sunny-day flooding, blue-sky flooding, that they're seeing, along with concerns about something called black gill affecting the shrimping industry in those coastal regions.

Those are just the tip of the iceberg, and I haven't even mentioned the climate risk and vulnerability index we developed at the University of Georgia, which points to which counties in Georgia are most vulnerable, and why, not just in terms of weather and climate impact, but in terms of who's impacted in those counties, which vulnerable populations live there. So that's why I say these are kitchen table issues. They're not about polar bears, monarch butterflies, or the year 2080, they're about our water supply, food supply, health, infrastructure, and well-being today.

Blair Beasley: You touched on my next question, but I'm hoping we can drill down a bit more. We know these impacts aren't felt evenly across our communities, and low-income and BIPOC communities often bear a disproportionate burden. Can you talk a bit about some of your work and research looking at those disproportionate impacts?

Dr. Marshall Shepherd: Yeah, it's clear that every single person on the planet is impacted by climate change, so I'm not trying to set anyone apart, but the research is also clear that because of large wealth and income gaps in this country, and around the world, some people are disproportionately affected by these impacts. I'll give you an example: we can go back to Hurricane Katrina in 2005 in New Orleans, since a lot of people still remember that storm. Everybody in the Gulf Coast region, Louisiana, New Orleans, Mississippi, was impacted by the hurricane, they were exposed to it. But some people in those communities had greater sensitivity to that exposure, and less ability to bounce back from it, we call that adaptive capacity, or resilience. The people we saw in the Superdome, needing food, water, shelter, medical care, those were the people with the greatest sensitivity and the least adaptive capacity. Some people in more affluent communities were equally impacted, but they had the ability to bounce back, they had housing insurance, they could hop in their cars, leave, go inland, and stay in a hotel for a week. Many people can't afford to do that.

That's an example of what I've been calling, in talks I give, the extreme weather climate gap, and it's directly related to the income gap or wealth gap in this country. We know elderly communities, children, people of color, and poor communities face the greatest sensitivity to extreme weather and climate events, and often have the least ability to bounce back. I'll say, even more locally here in Georgia, some of my research has focused on urban climate, and we know the urban heat island effect exists in cities. Couple that with heat waves and broader climate warming, and we've found that in Atlanta, and it's likely true in other cities too, there are heat islands within the heat island, and they're hotter, in some of the marginalized, underserved communities that are experiencing that. We call that the racialized urban heat island, or RUHI, because it's really adding a socioeconomic dimension to something we've known about in urban climate for a while.

Blair Beasley: Drawdown Georgia is really focused on climate solutions and what we can be doing right now in our state to start reducing the greenhouse gas emissions fueling this crisis. More and more, those climate solutions are also kitchen table issues for people across our state, whether it's deciding whether to buy an electric vehicle, install rooftop solar, or compost at home. So how do you think about climate solutions as kitchen table issues?

Dr. Marshall Shepherd: Well, they are, because that's the space, and I appreciate what Drawdown Georgia and the Ray C. Anderson Foundation are doing to move the needle forward in our state. Frankly, we're leaders nationally and internationally, I think people are now looking to Georgia because of what we've done with things like Drawdown Georgia and the Georgia Climate Project. When I give climate talks, people often ask me, "What can I do?" The first thing I say is you've got to be engaged as a climate voter, because we need large-scale change. We saw that

with the recent bipartisan infrastructure bill, that wasn't a red or blue bill, it had bipartisan support, and it's going to do things to improve infrastructure that supports climate solutions, EV stations, retrofitting diesel school buses, and so forth. So, being climate aware matters.

But then you think about many of the solutions that emerged out of the Drawdown Georgia research in its first phase, there are things people can do in their own homes. I was just out back at my house dumping compost into our bins. Food waste is one of the biggest sources of methane once it goes into our landfills, so just think about the amount of food waste that comes out of our own homes in a given week, we can actually compost that, keep it out of landfills, and reduce that methane buildup. I drive an electric vehicle, and people say, "Oh, you're an elitist, don't talk to me about electric vehicles, they're too expensive for the average person," or, "There's no access to charging," and right now, that may be somewhat true, but transitioning to electric vehicles, hybrids, and so forth will dramatically reduce our carbon emissions. I think it's also a way to advance equity, imagine poor households right now paying exorbitant amounts for gas, five, six, seven dollars a gallon, experiencing these swings and whips in gas prices. If we can get more people onto electric vehicles, they're shielded from that fossil fuel price tax we feel every time we see these big increases. We do have to increase infrastructure, and make sure it's available in multifamily housing and situations like that too, but we'll get there.

There are community solar programs too, more and more people are putting solar panels on their homes. These are ways you can engage at the kitchen table, at your own home level, and I think that matters. Planting trees, vegetation, these are all incremental steps, I don't want anyone to think individual actions alone are enough, but they certainly help. Even simple things we found in the Drawdown Georgia research, around diet, reducing meat consumption, family planning, and other choices. The Drawdown Georgia effort was a really comprehensive way of thinking about large-scale solutions, but also solutions that can happen at the individual household level too.

Blair Beasley: Thanks for that. I have one more question for you. We're really fortunate to have you working here in Georgia, both for your scholarship and for your commitment to communicating that expertise to the rest of us outside academia. As you've been talking with people across Georgia, have you noticed a change in how Georgians are thinking or talking about climate impacts and climate solutions?

Dr. Marshall Shepherd: I do. There's still what I call the 7 to 9% dismissive crowd, the Yale Program on Climate Change Communication does a "Six Americas" study every year, and there's about 7 to 9% of the population that, no matter what you say, is going to be dismissive, or bring up the kind of zombie theories we all hear, things that have been long refuted. So you just have to shove that noise aside and focus on the signal, because I do believe Georgians are coming around. I think people can see what's going on with the heat, rainstorms, and hurricanes, they perceive that something's different. I think Georgia, quiet as it's kept, is really a leader in solar programs, and we just had two or three companies announce they're going to be building electric vehicles in the state, plus an electric battery plant that's sprung up on Interstate 85 in

northeast Georgia. So while there may be rhetoric at times in this state, quietly, Georgia is doing some really good things in the solutions space for the nation. Policymakers will often frame it in terms of economic development and economic drivers, but quietly, we're building out real EV infrastructure right here in the state. We've adopted solar, I drive down Interstate 75 now and see these large solar panel farms. I think farmers are understanding the variability of drought and so forth too, so people are changing their thought process.

What's encouraging to me is that I talk to people and policymakers from both sides of the political aisle who seem to get it. I remember the last Georgia Climate Conference down on Jekyll Island, we had opening remarks from the governor. So we're starting, and I won't even say slowly, I think we're starting to see real recognition that this is a new economy emerging around renewable energy. You hear people in the state talking about nuclear power, renewable energy, I see commercials from Georgia Power all the time touting their renewable energy portfolio. That's a real shift from even five or ten years ago.

Blair Beasley: Well, thank you, Dr. Shepherd, we really appreciate your time today and sharing these thoughts with us.

Dr. Marshall Shepherd: Thank you so much, Blair, for having me, and thank you for all that you and the Ray C. Anderson Foundation continue to do for our state and our nation.

Blair Beasley: Thank you.