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Project: Supporting U.S. States in Integrating Agriculture into Climate Efforts

Partners: Coalition on Agricultural Greenhouse Gases, American Farmland Trust

Client: US Climate Alliance

## Executive Summary

The consequences of climate change are urgent, life-threatening, and dispersed. The most prominent of global efforts to mitigate these consequences is the Paris Climate Agreement. As of February 2019, twenty U.S. states and territory had joined the U.S. Climate Accord, committing to the Paris Climate Agreement's goal to reduce greenhouse gas emissions by 26% to 28% below 2005 levels by 2025. Efforts are amassing to support states in meeting this commitment. For their plans to succeed, every sector needs to be considered for reduction of greenhouse gas emissions and potential carbon sequestration.

My project with the Coalition on Agricultural Greenhouse Gases (C-AGG) and American Farmland Trust (AFT) is intended to support U.S. states, and more specifically U.S. Climate Alliance members, in integrating agriculture into climate efforts. A complex issue, climate change has a number of factors including human consumption of fossil fuels and the management of soil and nutrients. According to the Environmental Protection Agency, agriculture was responsible for 9% of the nation's greenhouse gas emissions in 2017. Conversely, sustainable agricultural management practices and land conservation can have beneficial environmental impacts and sequester carbon in soil. Indeed, according to the National Academy of Sciences, the nation's agricultural soils hold the potential to sequester 250 million tons of carbon per year.

To support states in involving agriculture in mitigating climate change, I contributed to phase one of a policy toolkit for US Climate Alliance members and other states spearheaded by C-AGG and AFT. The intervention method of this project was to engage state-level stakeholders through a supportive toolkit that reflects their needs and expands the pathways for consideration. The toolkit will also include private and federal funding opportunities and an assessment of quantification tools and methodology. Our working theory is that with this multi-pronged toolkit,

states will be equipped to pursue new and promising opportunities for supporting agriculture in mitigating climate change.

In its final form, what I contributed to phase one of the toolkit consisted of three primary deliverables: 1) fourteen Alliance member profiles identifying programs and policies that involve agriculture and have potential for climate change mitigation; 2) an initial comparison of these introductory findings; and 3) guiding deliverables for defining and developing the toolkit. Separately from my deliverables for my partners, I also assessed the toolkit outline using a sustainability framework to identify ways in which it could have a greater sustainability impact.

The initial comparative assessment highlighted that new healthy soils initiatives aren't the only way that states can employ agriculture to help achieve their greenhouse gas emissions targets. Indeed, they likely already have programs related to agriculture they could consider in these efforts. The two types of programs that have climate impacts and are already most widely adopted at states are water quality and conservation. Another type of state program that stood out upon conducting the assessment was climate resiliency, of which there were five state programs that had some level of engagement with agriculture and two targeting agriculture specifically.

The early findings of the comparative assessment as well as the results of my sustainability assessment underscore the importance of seeing the impacts and benefits of the toolkit from a whole systems perspective, in terms of practices for reduction of greenhouse gas emissions, collaborative opportunities, and social equity. However, through its efforts to support local efforts to mitigate the global sustainability problem of climate change, this toolkit project already reflects sustainability principles of human and social wellbeing, justice across societies, and justice from one generation to the next. By producing phase one of the toolkit, I helped generate forward momentum for integrating and supporting agriculture in climate change efforts.