

Project 001A

Community Assets and Attributes Model (CAAM)

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Cost Share Partner(s): WSU



Objective:

Better measurement and inclusion of community assets, such as social capital, in aviation biofuels research including the establishment of regional supply chains.

Project Benefits:

More socially sustainable aviation biofuel supply chains through empirically tested and validated quantitative model of social assets. CAAM allows for inclusion of these less utilized metrics. Validation in other regions leads to further improvement of these metrics for better assessment of regional supply chains.

Research Approach:

Development of quantitative model of social assets that are left out of much aviation biofuel research due to qualitative nature of these important concepts. Development through intensive literature review and factor analysis of available indicators to create final model. Strategic application of the CAAM model to provide advice to help stakeholders better engage with prospective site communities based on these assets and improve likelihood of success.

To validate and improve the model, mixed-methods are utilized which includes (1) quantification of community capitals (social, cultural, human, political) using national datasets and quantitative proxies. (2) qualitative interviews in supply chain region to validate/improve CAAM.

Major Accomplishments (to date):

M. Boglioli, et al. Searching for Culture in “Cultural Capital”: The Case for a Mixed Methods Approach to Production Facility Siting. *Frontiers in Energy Research*, 21 January 2022.

B. Anderson et al. Social Science Applications in Sustainable Aviation Biofuels Research: Opportunities, Challenges, and Advancements. *Frontiers in Energy Research*. 2022.

Future Work / Schedule:

CAAM model will be updated with latest data, social asset measurements for all available US counties will be recalculated with the latest measurements and applied in more U.S. regions.