

BRC Science Highlight How do the Research and Public Communities View Biofuel Development? August 2020

Objective

This study offers a systematic picture of social views on biofuel development based on two text data collections of news articles and research abstracts, which were generated using text mining techniques. By comparing how biofuels are viewed by academia and the public and evaluating the attitudes of the public toward biofuel development, this work may be used to inform policy and identify future research directions.

Approach

- ❖ Used comparative text mining (CTM) to summarize and compare biofuel-related topics relevant to the public and research communities.
- ❖ Conducted sentiment analysis by identifying words most relevant to positive or negative sentiments.

Results

- ❖ Both the academic community and the public responded actively to major biofuel-related policy programs and market conditions.
- ❖ Researchers observed both similarities and differences in the concerns, trends of concerns, and attitudes expressed by the two communities.
- ❖ There was high public interest in feedstock and genetic engineering innovations.
- ❖ The public had generally positive attitudes about biofuels. Negative perceptions stemmed primarily from fraud in biofuel tax credit programs, with minor concerns about policy and unintended impacts.

Significance

Knowledge about public interest and concern related to biofuel development may help craft policy which better reflects public interest and mitigates negative impacts, such as unintended environmental impacts and implementation of controversial policies and installation scenarios. Similarly, this work may help future research topics better align with, and address, the interests and concerns of the public.

