

Mapping Stakeholder Engagement along the Value Chain

Stakeholder engagement and interaction is essential to the mission of SPARC and a driver of project success. The SPARC mission is to collaboratively remove the physical, environmental, economic, and social constraints of regional *Brassica carinata* production as a renewable fuel, bioproduct, and co-product feedstock while simultaneously ensuring a stable markets for these products through demonstration of enhanced value across the supply chain. Achieving this ambitious goal requires an understanding of how to engage different stakeholders along the value chain. Recognizing that engagement is not uniform, the social science team set out to assess needs for more tailored interactions.

Understanding SPARC stakeholders

The first phase of this research involved interviewing key informants from private industry, project advisory board, and academic personnel in research and Extension areas (n=16). Participants described a wide breadth of interations with stakeholder groups.

The second phase of data gathering was an exercise with SPARC project team (n=34) during the quarterly All-Teams meeting. The exercise focused on reviewing a visual map of stakeholders along the value chain and arranging these groups within a power-interest matrix¹. This exercise helped illuminate the pluralistic nature of stakeholder engagement. Indeed, project team members

viewed different stakeholder groups differently and had different rationale for prioritizing stakeholders to engage.

A follow-up survey was sent to the phase two exercise participants, to evaluate the project's overall engagement with each sector (see Table 1). Overall, SPARC engages well with stakeholder groups related to the production system, green product development, and end user stakeholder groups. Findings indicate potential gaps engaging policy and compliance groups, logistics, and cross-discipline entities.

Table 1: Results of the post-exercise survey.

Value Chain Sector	,	Somewhat Engaged	Not Engaged
Production System (n=17)	65%	35%	0%
Logistics (n=13)	31%	62%	8%
Green Product Development (n=7)	71%	29%	0%
End Users (n=8)	75%	25%	0%
Policy & Compliance (n=7)	0%	100%	0%
Cross-Discipline Engagement (n=14)	43%	57%	0%
Average	48%	50%	2%

Results have been adapted to illustrate the percentage of participants who believe SPARC is either very, somewhat, or not engaged with the various sectors of the value chain.

Maps, gaps, & missing links

Figures 2 & 3 explore stakeholder groups along the value chain can be found at the end of this report. Furthermore, we provide an additional figure that identifies groups worth engaging more closely in the future.

Table 2 outlines important questions project advisors see as avenues for engaging SPARC stakeholders.

Enhancing engagement

Overall, participants characterized SPARC's engagement with stakeholders as positive, although they also highlighted opportunities for improvement. Multiple avenues are presented here: (1) engage current stakeholders with next questions, (2) place additional efforts into low-engaged areas, and (3) begin to sensitize and develop relationships with new groups that have been elucidated from key informant interviews.

This study points to the limitations of approaching stakeholder engagement with a "one-size-fits-all" approach. Rather, it calls for a more nuanced effort that tailors communications to the specific needs and interests of different groups. Furthermore, results highlight the significance of the particular "messenger" from SPARC and the need to tailor communications to specific stakeholder groups. Certain gatekeeping roles are critical to uphold and strengthen in order to protect established relationships between project team members and stakeholder groups. The study helped identify these critical connectors and associated spheres of influence that are positioned to align collaborative efforts into the future. Figure 1 provides an example of next steps to evaluate stakeholder connections and communication.

Table 2: Questions project advisors (n=5) posited to continue engaging SPARC stakeholders.

What questions should we ask our stakeholders?

What would make carinata/SPARC meaningful to you?

What are your needs to better collaborate with SPARC?

What will it take to create jobs related to the carinata industry?

What are the roadblocks to implementation?

What would make more involvement worth your while?

How can we overcome challenges?

What can we do to make a project a success?

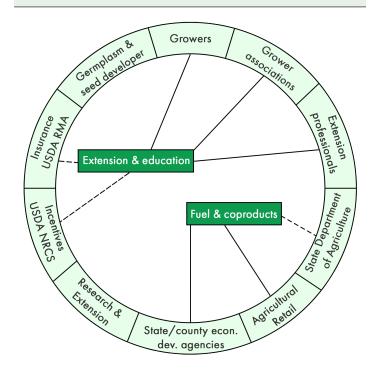


Figure 1: A stakeholder model, where stakeholders from segments of the value chain are positioned in an outer ring and SPARC workstreams are located inside. Participants from each team can draw relevant connections, indicating where engagement can be strengthened. Solid lines, for example, can indicate strong connections while dotted lines indicate areas in need of relationship building. Example, not based on data. Adapted from Mendelow (1981).

MAPPING SPARC STAKEHOLDER ENGAGEMENT ALONG THE VALUE CHAIN (2020)

Production System Logistics Renewable Product Development End Users Fuels: Aviation industry: Growers Grain storage Grower associations Grain processors Biofuel processor Passenger Fuel refiners Germplasm & seed developer Grain transport Commercial Extension professionals Seed buyers Fuel blenders Agricultural retail Fats, oils, & greases brokers Research & Extension Insurance - USDA RMA Fats, oils, & greases transport Bioproducts: Fuel brokers Incentives - USDA NRCS Pipeline operators **Textiles** CAAFI State Department of Agriculture Chemical refiners Consumers of green products Chemical processors Dairy & beef producers Plastics manufacturers Livestock integrators Pet food manufacturers Feed companies

USDA, DOE, other federal sponsors Research & Extension Consumers of green products Primary/Secondary teachers

Environmental NGOs Students (K-12 & beyond) State/County Economic Development Agencies Other USDA-NIFA CAP projects

Lawmakers	CA/OR (Low Carbon Fuel Standards)	Environmental NGOs
Risk management (insurance)	State/County Economic Development Agencies	International Civil Aviation Administration (ICAO)
Federal Aviation Administration (FAA)	Roundtable on Sustainable Biomaterials (RSB)	Domestic & International Regulatory Agencies

Figure 2: The organized results of research with the SPARC project team to identify and organize stakeholder groups that SPARC engages. These stakeholder groups have been organized into the portions of the value chain they fit into. Likewise, those groups falling into the cross-cutting categories of 'Cross-Discipline Engagement' and 'Policy & Compliance' interact with multiple parts of the value chain. This map is designed to capture point-in-time data, specifically the spring of 2020.

MISSING LINKS

WHERE TO ENGAGE STAKEHOLDERS NEXT (MAY 2020)

Production System Logistics Renewable Product Development End Users Existing crush entities Crush technology developers Family farms Supply chain component West Bio Groups working on alternative crops Renewable chemical groups All Taxpayers producers Private breeders Copotel Siapal Mustard 21, Inc. Remington

Cross-Discipline Engagement

Southern Alliance for Clean Energy	Southern Energy Alliance	Pisando Univeristy	AAFC
Marketing agencies	Investors	FL Cattlemen Association	

Policy & Compliance

Department of Transportation	County sustainability offices	Private regulators
Emergency management services		

Figure 3: The organized results of research with the SPARC key informants to identify groups that SPARC could engage with better. These stakeholder groups have been organized into the portions of the value chain they fit into. Likewise, those groups falling into the cross-cutting categories of 'Cross-Discipline Engagement' and 'Policy & Compliance' interact with multiple parts of the value chain. This map is designed to capture point-in-time data, specifically May 2020.

Acknowledgments

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References

¹Mendelow, A.L., "Environmental Scanning -- The Impact of the Stakeholder Concept" (1981). ICIS 1981 Proceedings. 20. https://aisel.aisnet.org/ icis 1981/20



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